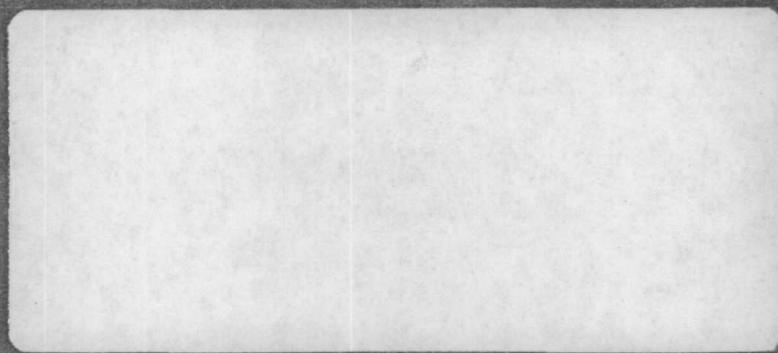


**LEGGETTE, BRASHEARS & GRAHAM, INC.**

Professional Ground-Water and  
Environmental Engineering Services



DAIMLERCHRYSLER DOCUMENT  
CONTROL NO.

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**DAYTON THERMAL PRODUCTS PLANT  
SOIL PILE INVESTIGATION REPORT  
DAYTON, OHIO**

Prepared For

DaimlerChrysler Corporation

October 1999

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**DAYTON THERMAL PRODUCTS PLANT  
SOIL PILE INVESTIGATION REPORT  
DAYTON, OHIO**

**INTRODUCTION**

Leggette, Brashears & Graham, Inc. (LBG) was retained by DaimlerChrysler Corporation (DaimlerChrysler) to collect soil samples from three soil piles in the northeast corner of the Dayton Thermal Products plant in Dayton, Ohio. The objective of this investigation was to collect representative soil samples from each soil pile and send the samples to a laboratory for waste characterization analyses. The site is located in the NE $\frac{1}{4}$  of Section 5, Township 1, Range 7 of the 7½-minute Quadrangle U.S. Geologic Survey Topographic Map, North Dayton, Ohio (figure 1).

**SCOPE OF WORK**

Five test pits (TP) were dug on top of both Soil Pile #1 (SP01TP01 through SP01TP05) and Soil Pile #2 (SP02TP01 through SP02TP05). Two test pits were dug at Soil Pile #3 (SP03TP01 and SP03TP02). Due to the amount of old equipment surrounding Soil Pile #3 the backhoe could only approach the pile from one side (SP03TP02). Soil sample SP03TP01 was dug by hand.

All soil samples collected from the test pits were sent to Lancaster Laboratories, Lancaster, Pennsylvania (Lancaster) and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), toxicity characteristic leaching procedure (TCLP) metals, pesticides, polychlorinated biphenyls (PCBs), reactivity, ignitability, corrosivity, and moisture.

**BACKGROUND AND SOIL PILE HISTORY**

DaimlerChrysler had used the Old Maxwell Complex, erected about 1907, primarily as a warehouse since 1980. Soil Piles #1 and #2 were generated in 1990 and 1991 when the Old Maxwell Complex was demolished (beginning in October 1990) and Building 59 was built. Four original soil piles were created during the demolition activities (figure 2). None of the excavated soils were taken

off site. Three of the historical soil piles were constructed to be vapor extraction beds; two of which were actually treated by vapor extraction.

- Historical Stockpile 1, the “Clean” pile; located north of Buildings 47 and 50 in the parking lot near the north property line: The “Clean” soil pile no longer exists. Historical estimated volume was 14,050 yd<sup>3</sup>. This pile had no visible staining, less than 40 milligrams per kilogram (mg/kg) total petroleum hydrocarbons (TPH), and less than 50 micrograms per kilogram ( $\mu$ g/kg) VOCs. This area is currently used as a trailer parking lot and rack storage area.

#### Current Soil Pile #1

- Historical Stockpile 2, the “TPH” pile; located northeast of Building 47: This pile was the first vapor extraction bed to treat soil impacted predominantly with oily material. Historical estimated volume was 13,600 yd<sup>3</sup>. This pile contained the highest concentrations of TPH (from 40 to 3,500 mg/kg) and had visibly stained soil. Currently part of Soil Pile #1.
- Historical Stockpile 3, the “VOC” pile; located north of Building 47: This pile was the second vapor extraction bed to treat soil impacted predominantly with VOCs. Historical estimated volume was 6,070 yd<sup>3</sup>. This pile contained the highest levels of VOCs (up to a total of about 10,000  $\mu$ g/kg). Currently part of Soil Pile #1.
- Historical Stockpile 4, the “fourth” pile; located east of Building 47. This pile was constructed as the third vapor extraction bed to treat soil but no vapor extraction blowers were attached to this bed. This pile is composed of soil from the new building parking lot which was completed after the new building. This pile was not completed until some time after the above three stockpiles. Its volume is historically estimated at 1,800 yd<sup>3</sup>. Historical analytical data shows that this pile contained TPH greater than 105 mg/kg. Currently part of Soil Pile #1.

Construction of soil-vapor extraction (SVE) beds began March 14, 1991 and was completed April 19, 1991 north of Building 47 to treat soil impacted by VOCs and TPH (figure 2). The SVE system was installed and operated by John Mathes and Associates, Inc. (Mathes, 1991). The vapor

extraction beds consisted of a series of 4-inch perforated piping connected with a manifold to regenerative blowers (figure 3). The vapor extraction beds and "Clean" pile were covered with polyethylene sheeting. Six-inch diameter perforated piping was installed in the TPH and VOC piles under the sheeting to enable air inflow from the atmosphere to the vapor extraction beds (figure 3). The "Clean" pile also had 6-inch perforated piping extending the entire length of the pile and was used to promote natural ventilation.

Blowers were attached to the piping in the VOC and TPH piles for vapor extraction. Before start-up, a pilot study was conducted to optimize operating parameters and gather information on VOC emissions for approval from the Regional Air Pollution Control Agency (RAPCA) in Dayton, Ohio. The vapor extraction system start-up date is unclear in previous reports, but RAPCA granted approval to operate the process on April 30, 1991. After three months of operation (week of July 29, 1991), analytical results indicated that approximately 90 percent of VOCs had been removed. Trichloroethene (TCE) had been reduced 88 percent, 1,1,1-trichloroethane by 95 percent, tetrachloroethene by 83 percent, and total 1,2-dichloroethene by 100 percent (Mathes, 1991). The blowers were then turned off. After approximately eight months, it was reported that the polyethylene sheeting had been ripped or blown off, exposing the soil piles. The blowers are no longer present, but the piping is still in Soil Pile #1.

Soil Pile #1 was initially sampled in the early 1990s and analyzed for VOCs and TPH. Historical report references are in Appendix I.

#### **Current Soil Pile #2**

Verbal communication with several people on site indicate that Soil Pile #2 may consist of soils from the Historic Stockpile 1 ("Clean" pile). Plant personnel noted that none of the soils left the Dayton site. Historical reports are unclear as to the origin of the current Soil Pile #2.

#### **Current Soil Pile #3**

The origination date for Soil Pile #3 is unknown. It is mostly construction debris from recent plant activities.

### **CURRENT SOIL PILE INVESTIGATION**

Soil Pile #1 was initially sampled by LBG September 15, 1998 with a hand auger. Due to the hardness of the soil, the hand auger was advanced to a maximum depth of only six feet. Soil Piles

#2 and #3 were too hard to penetrate with a hand auger, pick axe, or spade shovel. As a result, only three samples were collected from Soil Pile #1 and no samples were collected from Soil Piles #2 or #3. Figure 4 shows the sample locations for SB-1, SB-2, and SB-3 in Soil Pile #1. Analytical results from the 1998 sampling event indicated an exceedence of arsenic (tables 1 through 7). LBG is not aware of any sampling of Soil Piles #2 and #3 prior to this recent investigation.

The recent investigation was conducted July 27 and 28, 1999 using a backhoe and operator provided by Onyx Industrial Services, Inc., Huber Heights, Ohio. In order to get the backhoe on top of the soil piles, the backhoe operator had to grade ramps on the side of Soil Piles #1 and #2 by pulling down some of the soil embankment (figure 4). Soil Pile #3 was accessible from the side.

### CURRENT SOIL PILE DESCRIPTION

Soil Pile #1 is approximately 9 feet deep, 400 feet long (north-south), 200 feet wide (east-west), and is estimated by LBG to be approximately 8,500 yd<sup>3</sup>. It is steep walled, flat on top, and covered with a plastic liner overlain by approximately 3 inches of 0.5 to 2-inch diameter aggregate. It has an even mixture of clay, silt, sand, and gravel, and historically contained no visible staining. The soil was wet to saturated. This soil pile is the combination of three historical soil piles (TPH, VOC, fourth). Some of the old SVE piping was encountered with the backhoe at SP01TP04. Photos 1 through 3 present different views of Soil Pile #1.

Soil Pile #2 is approximately 8 feet tall, 190 feet wide, 310 feet long, and is estimated by LBG to be approximately 14,500 yd<sup>3</sup>. It is steep walled, flat on top, underlain by plastic sheeting, and covered with 3 to 5-foot high plant growth (i.e., grasses, weeds, small trees). The soil is a mixture of clay, silt, and sand with some gravel. The soil was considerably dryer than Soil Pile #1. There is a 1 to 2-foot high berm surrounding the soil pile to control runoff. Photos 4 through 7 present different views of Soil Pile #2.

Soil Pile #3 is approximately 20 feet tall, conical in shape with steep sides, very hard and dry, and was surrounded by unused plant equipment. This pile is estimated by LBG to be approximately 1,000 yd<sup>3</sup>. This pile is a mixture of silt, sand and gravel, but also contains large amounts of concrete and other construction debris (brick, piping, etc.). Photo 8 presents a view of Soil Pile #3.

## SOIL SAMPLE COLLECTION

The test pits dug in Soil Piles #1 and #2 were approximately 9 feet and 8 feet deep, respectively, near the base of each soil pile. Test pits were dug at each corner of the soil piles with one near the center of the pile to obtain representative soil samples. When the backhoe reached the base of the soil piles, a final scoop was lifted and samples were collected directly from the backhoe bucket and placed in laboratory supplied clear 4 and 8 ounce glass jars sealed with Teflon coated lids. Samples were screened by the on-site hydrogeologist with a photoionization detector (PID) equipped with a 10.2 eV lamp. No detectable VOC concentrations were observed with the PID.

Soil sample SP03TP01 was collected manually near the top of Soil Pile #3 by scraping off the surface soils with a shovel. A maximum depth of approximately 1.5 feet was obtained due to the hardness of the soil. Soil sample SP03TP02 was collected with the backhoe from the northwest corner of Soil Pile #3. The test pit reached a maximum depth of 4 feet due to the limitations of the backhoe and the surrounding obstructions. All sample locations are displayed in figure 4.

## LABORATORY RESULTS

All soil samples from the July 1999 sampling event were shipped to Lancaster for VOC analysis by EPA Method 8260, SVOC analysis by Method 8270C, TCLP metals analysis by Method 1311, pesticides analysis by Method 8081A, PCBs analysis by Method 8082, reactivity, ignitability, corrosivity, and percent moisture (tables 1 through 7). VOC, TCLP metals, pesticides, and PCB analyses show that all soil samples had concentrations below the State of Ohio Voluntary Action Program (VAP) residential limits. The Ohio Voluntary Action Program residential limits are from the 1998-2 Edition of the State of Ohio Environmental Protection Agency Regulations book, Volume Two.

Eight samples from the three soil piles exceeded the VAP residential limit for benzo(a)pyrene, one of the 23 SVOC analytes with positive detections. Although these samples exceeded the VAP residential limit, none of them exceeded the VAP industrial limit. The VAP residential and industrial limit for benzo(a)pyrene is 550 µg/kg and 3,100 µg/kg, respectively.

## SUMMARY

Recent sampling and analyses of the three soil piles indicate the soils are non-hazardous, with only benzo(a)pyrene exceeding VAP residential limits. No compounds exceed VAP industrial limits.

There was some inconclusive evidence in the historical reports which led to some confusion as to the origination of the soil piles, especially for Soil Pile #2. From talking with personnel on site, the old "Clean" pile soils may have been moved to the present location of Soil Pile #2. This is plausible since the historic volume of the "Clean" pile is 14,050 yd<sup>3</sup> (figure 3) and the LBG estimated volume of Soil Pile #2 is 14,500 yd<sup>3</sup>.

The "fourth" pile (east of Building 47 in Soil Pile #1) was said to be from the new Building 59 parking lot, but previous reports do not say where exactly the soil came from or when it was excavated and stockpiled. There was nothing stated in previous reports of any event to replace the plastic sheeting on the present Soil Pile #1 after the polyethylene sheeting had been ripped or blown off, yet it was replaced. There is no indication as to the origin of Soil Pile #2. Soil Pile #3 has been used for stockpiling recent plant construction debris; mainly debris from the reconstruction of a section of the steam tunnel north east of Building 40A.

Although the vapor extraction system start-up date is not given, it is assumed that it was April 30, 1991 (date of process approval from the Ohio RAPCA) because previous reports stated that stockpile sampling occurred the week of July 29, 1991, three months after the process approval date (Mathes, 1991).

LEGGETTE, BRASHEARS & GRAHAM, INC.



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October 29, 1999

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- Burlington Environmental, "Environmental Site Assessment," March 16, 1992.
- Clean Tech, "Biodegradability Study for the Acustar Plant," November 1992.
- Clean Tech, "Dayton Thermal Products Site Activity Summary," April 1993.
- John Mathes and Associates, Inc., "Sampling and Analysis to Evaluate Soil Remediation," September 3, 1991.

## **TABLES**

TABLE 1

**DAYTON THERMAL PRODUCTS PLANT  
DAYTON, OHIO**

**STOCKPILED SOILS**

**SUMMARY OF POSITIVE DETECTIONS IN SOIL  
VOLATILE ORGANIC COMPOUNDS**  
UNITS ARE IN MICROGRAMS PER KILOGRAM (ug/kg)

SAMPLE LOCATION	SAMPLE DEPTH (FEET)	DATE	DILUTION FACTOR	1,1-DICHLORO-ETHANE	1,2-DICHLORO-ETHENE (TOTAL)	TRICHLORO-ETHENE	TETRACHLORO-ETHENE	ACETONE	METHYLENE CHLORIDE	DIESEL RANGE ORGANICS	TOTAL PETROLEUM HYDROCARBONS	1,1,1-TRICHLOROETHANE	CIS-1,2-DICHLOROETHENE	TRANS-1,2-DICHLOROETHENE	CHLOROFORM
VAP RESIDENTIAL LIMITS ug/kg				620,000	—	77,000	94,000	4,500,000	220,000	—	—	1,200,000	450,000	910,000	—
VAP INDUSTRIAL LIMITS ug/kg				2,300,000	—	330,000	370,000	55,000,000	990,000	—	—	1,400,000	1,200,000	2,500,000	—
SP-1 - SB-1	4-6'	09/15/1998	1.0	<11	<23	5 J	1 J	3 JB	8 JB	<57,000	108,000	< 11	—	—	< 11
SP-1 - SB-2	4-5'	09/15/1998	1.0	<12	4 J	1 J	<12	2 JB	9 JB	<58,000	93,200	< 12	—	—	< 12
SP-1 - SB-3	4-5'	09/15/1998	1.0	1 J	3 J	10 J	1 J	4 JB	9 JB	<58,000	325,000	< 12	—	—	< 12
SP-1 - CP-1	COMPOSITE	09/15/1998	—	—	—	—	—	—	—	—	120,000	—	—	—	—
T-0001	---	09/15/1998	1.0	<10	<20	<10	<10	2 JB	10 B	—	—	< 10	—	—	< 10
SP01TP01	9'	07/27/1999	1.0	11	11	32	2 J	19 J	10	—	—	2 J	11	<2	< 1
SP01TP02	9'	07/27/1999	1.0	2 J	< 4	5 J	2 J	< 8	3 J	—	—	2 J	<2	<2	< 1
SP01TP03	9'	07/27/1999	1.0	< 1	< 4	12	< 1	< 8	9	—	—	< 1	< 2	< 2	< 1
SP01TP04	9'	07/27/1999	1.0	< 1	8	4 J	< 1	18 J	11	—	—	< 1	8	< 2	< 1
SP01TP05	9'	07/27/1999	1.0	5 J	3 J	9	2 J	< 8	9	—	—	6	3 J	< 2	< 1
SP02TP01	8'	07/28/1999	1.0	< 1	< 4	87	< 1	< 8	31	—	—	2 J	< 2	< 2	1 J
SP02TP02	8'	07/28/1999	1.0	< 1	< 4	23	< 1	< 8	5 J	—	—	< 1	< 2	< 2	< 1
SP02TP03	8'	07/28/1999	1.0	< 1	< 4	31	1 J	< 8	11	—	—	< 1	< 2	< 2	< 1
SP02TP04	8'	07/28/1999	1.0	< 1	< 4	20	1 J	< 8	14	—	—	< 1	< 2	< 2	< 1
SP02TP05	8'	07/28/1999	1.0	< 1	< 4	16	< 1	< 8	25	—	—	< 1	< 2	< 2	< 1
SP03TP01	1.5'	07/28/1999	1.0	< 1	< 4	< 1	< 1	9 J	12	—	—	< 1	< 2	< 2	< 1
SP03TP02	4'	07/28/1999	1.0	< 1	< 4	18	19	< 8	7	—	—	< 1	< 2	< 2	< 1

VAP: OHIO EPA VOLUNTARY ACTION PROGRAM REGULATIONS "GENERIC DIRECT-CONTACT SOIL STANDARDS" 1998-2 EDITION

—: NOT ESTABLISHED OR NOT ANALYZED

B: ANALYTE WAS FOUND IN THE ASSOCIATED BLANK AS WELL AS THE SAMPLE.

J: ESTIMATED VALUE

<: LESS THAN

SP: SOIL PILE

SB: SOIL BORING

TP: TEST PIT

CP: COMPOSITE SAMPLE OF SB-1, SB-2, AND SB-3

T-0001: TRIP BLANK

S:TECH3CHRY/DAYTONANALYTICAL  
Soilpile, VOC's  
11/03/1999, 11:18 AM

**TABLE 2**  
**DAYTON THERMAL PRODUCTS PLANT**  
**DAYTON, OHIO**  
**STOCKPILED SOILS**

**SUMMARY OF POSITIVE DETECTIONS IN SOIL  
SEMI-VOLATILE ORGANIC COMPOUNDS  
CONCENTRATIONS IN MICROGRAMS PER KILOGRAM (ug/kg)**

SAMPLE LOCATION	SAMPLE DEPTH (FEET)	SAMPLE DATE	DILUTION FACTOR	ANTHRACENE	BENZO (a) ANTHRACENE	BENZO (b) FLUORANTHENE	BENZO (k) FLUORANTHENE	BENZO (g,h,i) PERYLENE	BENZO (a) PYRENE	CARBAZOLE	CHRYSENE	INDENO (1,2,3-cd) PYRENE	FLUORANTHENE	PHENANTHRENE	PYRENE
VAP RESIDENTIAL LIMITS ug/kg				9,500,000	5,500	5,500	55,000	—	550	—	550,000	5,500	1,300,000	—	950,000
VAP INDUSTRIAL LIMITS ug/kg				89,000,000	31,000	31,000	310,000	—	3,100	—	3,100,000	31,000	12,000,000	—	8,900,000
SP-1 - SB-1	4-6'	09/15/1998	1.0	75 J	300 J	380	130 J	140 J	250 J	63 J	290 J	140 J	610	370 J	420
SP-1 - SB-2	4-5'	09/15/1998	1.0	<380	58 J	76 J	<380	<380	54 J	<380	62 J	<380	100 J	54 J	70 J
SP-1 - SB-3	4-5'	09/15/1998	1.0	<380	110 J	110 J	76 J	46 J	71 J	<380	110 J	47 J	250 J	150 J	180 J
SP01TP01	9'	07/27/1999	1.0	230 J	680	660	280 J	250 J	470	100 J	680	290 J	1400	830	1200
SP01TP02	9'	07/27/1999	1.0	< 39	150 J	180 J	77 J	79 J	130 J	< 39	140 J	88 J	280 J	170 J	260 J
SP01TP03	9'	07/27/1999	1.0	76 J	300 J	320 J	140 J	120 J	220 J	< 39	310 J	140 J	520	320 J	470
SP01TP04	9'	07/27/1999	1.0	260 J	660	820	340 J	400	620	97 J	640	480	1300	860	1200
SP01TP05	9'	07/27/1999	1.0	54 J	250 J	250 J	100 J	120 J	180 J	< 38	240 J	130 J	390	210 J	380 J
SP02TP01	8'	07/28/1999	1.0	580	1600	1700	670	710	1200	310 J	1600	830	3400	2400	3200
SP02TP02	8'	07/28/1999	1.0	370	1100	1200	530	570	910	200 J	1200	650	2400	1600	2200
SP02TP03	8'	07/28/1999	1.0	1300	2800	2800	1100	1300	2300	340 J	2700	1500	6100	3900	5400
SP02TP04	8'	07/28/1999	1.0	240 J	760	930	360 J	390	640	140 J	780	450	1500	1000	1400
SP02TP05	8'	07/28/1999	1.0	950	2700	3200	1300	1500	2400	570	2700	1700	6200	4200	5400
SP03TP01	1.5'	07/28/1999	1.0	240 J	850	1100	480	580	880	88 J	860	670	1600	900	1500
SP03TP02	4'	07/28/1999	1.0	210 J	750	1000	420	590	810	100 J	710	650	1600	920	1500

VAP: OHIO EPA VOLUNTARY ACTION PROGRAM REGULATIONS "GENERIC DIRECT-CONTACT SOIL STANDARDS" 1998-2 EDITION

—: NOT ESTABLISHED

J: ESTIMATED VALUE

<: LESS THAN

SP: SOIL PILE

SB: SOIL BORING

TP: TEST PIT

AREAS HIGHLIGHTED IN YELLOW REPRESENT EXCEEDENCES OVER THE VAP RESIDENTIAL LIMIT

**TABLE 2**  
**DAYTON THERMAL PRODUCTS**  
**DAYTON, OHIO**  
**STOCKPILE SOILS**

**SUMMARY OF POSITIVE DETECTIONS IN SOIL  
SEMI-VOLATILE ORGANIC COMPOUNDS  
CONCENTRATIONS IN MICROGRAMS PER KILOGRAM (ug/kg)**

SAMPLE LOCATION	SAMPLE DEPTH (FEET)	SAMPLE DATE	DILUTION FACTOR	ACENAPHTHENE	ACENAPHTHYLENE	FLUORENE	DIBENZO (a,h) ANTHRACENE	NAPHTHALENE	2-METHYLNAPHTHALENE	DIBENZOFURAN	2-METHYLPHENOL	PHENOL	3,3'-DICHLOROBENZIDINE	BIS (2-ETHYLHEXYL) PHTHALATE
VAP RESIDENTIAL LIMITS ug/kg				1,900,000	—	1,300,000	550	1,800,000	—	—	—	26,000,000	—	150,000
VAP INDUSTRIAL LIMITS ug/kg				1,800,000	—	12,000,000	3,100	22,000,000	—	—	—	300,000,000	—	860,000
SP-1 - SB-1	4-6'	09/15/1998	1.0	< 380	< 380	< 380	< 380	< 380	< 380	< 380	< 380	< 380	< 760	< 380
SP-1 - SB-2	4-5'	09/15/1998	1.0	< 380	< 380	< 380	< 380	< 380	< 380	< 380	< 380	< 380	< 770	< 380
SP-1 - SB-3	4-5'	09/15/1998	1.0	< 380	< 380	< 380	< 380	< 380	< 380	< 380	< 380	< 380	< 770	< 380
SP01TP01	9'	07/27/1999	1.0	46 J	< 39	56 J	88 J	< 39	< 39	< 39	< 39	< 79	< 79	< 79
SP01TP02	9'	07/27/1999	1.0	< 39	< 39	< 39	< 39	< 39	< 39	< 39	< 39	< 79	< 79	< 79
SP01TP03	9'	07/27/1999	1.0	< 39	< 39	< 39	40 J	< 39	< 39	< 39	< 39	< 78	< 78	< 78
SP01TP04	9'	07/27/1999	1.0	58 J	90 J	110 J	120 J	110 J	48 J	82 J	< 39	< 80	< 80	< 80
SP01TP05	9'	07/27/1999	1.0	< 38	< 38	< 38	41 J	< 38	< 38	< 38	< 38	< 78	< 78	< 78
SP02TP01	8'	07/28/1999	1.0	150 J	< 38	190 J	210 J	70 J	63 J	130 J	< 38	< 78	< 78	< 78
SP02TP02	8'	07/28/1999	1.0	99 J	< 36	110 J	160 J	40 J	43 J	69 J	< 36	< 74	< 74	< 74
SP02TP03	8'	07/28/1999	1.0	240 J	46 J	310 J	360 J	150 J	77 J	170 J	< 37	< 75	< 75	< 75
SP02TP04	8'	07/28/1999	1.0	62 J	< 37	75 J	130 J	43 J	< 37	56 J	< 37	< 74	< 74	< 74
SP02TP05	8'	07/28/1999	1.0	330 J	70 J	300 J	400	110 J	90 J	210 J	< 37	2500	180 J	460
SP03TP01	1.5'	07/28/1999	1.0	55 J	200 J	77 J	150 J	93 J	46 J	52 J	120 J	< 70	< 70	< 70
SP03TP02	4'	07/28/1999	1.0	52 J	130 J	81 J	150 J	95 J	76 J	60 J	< 36	< 74	< 74	180 J

VAP: OHIO EPA VOLUNTARY ACTION PROGRAM REGI

—: NOT ESTABLISHED

J: ESTIMATED VALUE

<: LESS THAN

SP: SOIL PILE

SB: SOIL BORING

TP: TEST PIT

AREAS HIGHLIGHTED IN YELLOW REPRESENT EXCEE

**TABLE 3**  
**DAYTON THERMAL PRODUCTS PLANT**  
**DAYTON, OHIO**  
**STOCKPILED SOILS**  
**TOTAL AND TCLP METALS**

**TOTAL METALS (mg/kg)**

SAMPLE LOCATION	SAMPLE DEPTH (FEET)	DATE	ARSENIC	BARIUM	CADMIUM	CHROMIUM*	LEAD	MERCURY	SELENIUM	SILVER	ZINC	COPPER
VAP RESIDENTIAL LIMITS mg/kg			6.9	5,000	32	230	400	16	—	—	19,000	—
VAP INDUSTRIAL LIMITS mg/kg			86	140,000	300	2,800	2,800	230	—	—	370,000	—
SP-1 - SB-1	4-6'	09/15/1998	6.9	53.7	0.73	12.9 E	26.4 E	<0.06 N	0.67 N	<0.07	—	—
SP-1 - SB-2	4-5'	09/15/1998	8.5	51.1	1.7	15.3 E	17.9 E	<0.06 N	<0.57 N	<0.07	—	—
SP-1 - SB-3	4-5'	09/15/1998	7.1	50.5	1.0	10.7 E	17.7 E	1.8 N	<0.56 N	<0.06	—	—

**TCLP METALS (mg/L)**

SAMPLE LOCATION	SAMPLE DEPTH (FEET)	DATE	ARSENIC	BARIUM	CADMIUM	CHROMIUM	LEAD	MERCURY	SELENIUM	SILVER	ZINC	COPPER
MAXIMUM TCLP CONCENTRATION (mg/L)			5	100	1	5	5	0.2	1	5	—	—
SP-1 - CP-1	COMPOSITE	09/15/1998	< 0.0037	0.343	0.0044 B	0.0012 B	0.0121	< 0.0001	0.0205 N	< 0.0006	—	—
SP01TP01	9'	07/27/1999	< 0.007	0.52	0.002	< 0.0054	< 0.023	< 0.0004	0.0074 J	< 0.0057	0.05	< 0.0058
SP01TP02	9'	07/27/1999	< 0.007	0.48	0.0018	0.0107 J	< 0.023	< 0.0004	< 0.0059	< 0.0057	0.03	0.0089 J
SP01TP03	9'	07/27/1999	< 0.007	0.57	0.0024	< 0.0054	< 0.023	< 0.0004	0.006 J	< 0.0057	0.071	< 0.0058
SP01TP04	9'	07/27/1999	< 0.007	0.65	0.0024	< 0.0054	0.028 J	0.000069 J	< 0.0059	< 0.0057	0.167	0.0111 J
SP01TP05	9'	07/27/1999	< 0.007	0.47	0.0017	< 0.0054	< 0.023	< 0.0004	0.0072 J	< 0.0057	0.054	< 0.0058
SP02TP01	8'	07/28/1999	< 0.007	0.63	0.0027	< 0.0054	< 0.023	< 0.0004	< 0.0059	< 0.0057	0.207	0.01 J
SP02TP02	8'	07/28/1999	< 0.007	0.63	0.0025	< 0.0054	< 0.023	< 0.0004	0.0061 J	< 0.0057	0.1	0.009 J
SP02TP03	8'	07/28/1999	< 0.007	0.68	0.0032	< 0.0054	0.27	< 0.0004	< 0.0059	< 0.0057	0.179	0.0225 J
SP02TP04	8'	07/28/1999	< 0.007	0.54	0.0025	< 0.0054	< 0.023	< 0.0004	< 0.0059	< 0.0057	0.082	0.0235 J
SP02TP05	8'	07/28/1999	< 0.007	0.6	0.0024	< 0.0054	< 0.023	0.000048 J	< 0.0059	< 0.0057	0.125	0.0093 J
SP03TP01	1.5'	07/28/1999	< 0.007	0.85	0.004	< 0.0054	0.05 J	< 0.0004	0.0067 J	< 0.0057	0.081	0.014 J
SP03TP02	4'	07/28/1999	< 0.007	0.78	0.002	< 0.0054	0.029 J	< 0.0004	< 0.0059	< 0.0057	0.055	0.0241 J

ONLY TCLP METALS WERE ANALYZED FOR SAMPLES SP01TP01 - SP01TP05, SP02TP01 - SP02TP05, SP03TP01 - SP03TP02. SEE TABLE 7 FOR TCLP METALS.

VAP: OHIO EPA VOLUNTARY ACTION PROGRAM REGULATIONS "GENERIC DIRECT-CONTACT SOIL STANDARDS" 1998-2 EDITION

TCLP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE

—: NOT ESTABLISHED OR NOT ANALYZED

B: ANALYTE WAS FOUND IN THE ASSOCIATED BLANK AS WELL AS THE SAMPLE.

E: ESTIMATED VALUE (SEE REPORT QUALIFIERS)

J: ESTIMATED VALUE

N: SAMPLE SPIKE RECOVERY IS OUTSIDE OF CONTROL LIMITS

<: LESS THAN

SB: SOIL BORING

SP: SOIL PILE

TP: TEST PIT

CP: COMPOSITE SAMPLE OF SB-1, SB-2, AND SB-3

\*: CHROMIUM LIMITS BASED ON CHROMIUM VI: CHROMIUM III RESIDENTIAL = 8,800 mg/kg; INDUSTRIAL = 63,000 mg/kg

AREAS HIGHLIGHTED IN YELLOW REPRESENT EXCEEDENCES OVER THE VAP RESIDENTIAL LIMIT

MAXIMUM TCLP CONCENTRATION OF CONTAMINANTS PER OHIO EPA HAZARDOUS WASTES CHAPTER 3745-51-24, TABLE 1 OF OHIO EPA REGULATIONS VOLUME TWO, 1998-2 EDITION.

TABLE 4

DAYTON THERMAL PRODUCTS PLANT  
DAYTON, OHIO

## STOCKPILED SOILS

SUMMARY OF POSITIVE DETECTIONS IN SOIL  
PESTICIDE ORGANICS

CONCENTRATIONS IN MICROGRAMS PER KILOGRAM (ug/kg)

SAMPLE LOCATION	SAMPLE DEPTH (FEET)	SAMPLE DATE	DILUTION FACTOR	ALPHA-BHC	GAMMA-BHC (LINDANE)	4,4'-DDE	4,4'-DDT	4,4'-DDD	DI-DRIN	ENDOSULFAN II	ENDOSULFAN SULFATE	HEPTACHLOR	HEPTACHLOR EPOXIDE	ENDRIN KETONE	METHOXYCHLOR	ALPHA-CHLORDANE	GAMMA-CHLORDANE	ENDRIN	ENDRIN ALDEHYDE	
<b>VAP RESIDENTIAL LIMITS ug/kg</b>																				
<b>VAP INDUSTRIAL LIMITS ug/kg</b>																				
SP-1 - SB-1	4-6'	09/15/1998	1.0	<1.9	0.88 JP	1.6 JP	<11	< 7.6	0.38 JP	0.98 J	<7.6	0.67 JP	<1.9	<19	<19	—	—	< 7.6	< 7.6	
SP-1 - SB-2	4-5'	09/15/1998	1.0	<1.9	0.39 JP	<4.0	0.67 JP	< 7.7	0.49 JP	<7.7	1.5 JP	<1.9	<1.9	2.3 JP	11 JP	—	—	< 7.7	< 7.7	
SP-1 - SB-3	4-5'	09/15/1998	1.0	0.26 JP	0.98 JP	<4.0	0.80 JP	< 7.7	0.77 JP	<7.7	1.7 JP	<1.9	0.41 JPB	3.1 JP	12 JP	—	—	< 7.7	< 7.7	
SP01TP01	9'	07/27/1999	10.0	< 0.79	< 0.79	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.79	1.49 J	< 1.5	38.1 J	< 0.79	1.76 J	< 1.5	< 1.5	
SP01TP02	9'	07/27/1999	10.0	< 0.79	< 0.79	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.79	< 0.79	< 1.5	< 7.9	< 0.79	< 0.79	< 1.5	< 1.5	
SP01TP03	9'	07/27/1999	10.0	< 0.78	< 0.78	< 1.5	4.3 J	< 1.5	< 1.5	< 1.5	< 1.5	< 0.78	< 0.78	< 1.5	58	< 0.78	< 0.78	< 1.5	< 1.5	
SP01TP04	9'	07/27/1999	10.0	< 0.8	< 0.8	< 1.5	17.0	< 1.5	< 1.5	< 1.5	< 1.5	< 0.8	2 J	< 1.5	16 J	< 0.8	< 0.8	2.1 J	< 1.5	
SP01TP05	9'	07/27/1999	10.0	< 0.78	< 0.78	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.78	< 0.78	< 1.5	9.3 J	< 0.78	< 0.78	< 1.5	< 1.5	
SP02TP01	8'	07/28/1999	10.0	1.08 J	< 0.78	< 1.5	2.6 J	< 1.5	< 1.5	< 1.5	< 1.5	< 0.78	2.14 J	< 1.5	112	< 0.78	13.4	< 1.5	2.7 J	
SP02TP02	8'	07/28/1999	10.0	< 0.74	< 0.74	< 1.4	14.0	< 1.4	< 1.4	< 1.4	< 1.4	< 0.74	2.13 J	< 1.4	52	< 0.74	8.2	2.6 J	< 1.4	
SP02TP03	8'	07/28/1999	10.0	1.06 J	< 0.75	< 1.5	15	11.0	< 1.5	< 1.5	< 1.5	< 1.5	1.29 J	0.97 J	< 1.5	145	< 0.75	24.6	< 1.5	2.9 J
SP02TP04	8'	07/28/1999	10.0	< 0.74	< 0.74	< 1.4	6.2 J	3.3 J	< 1.4	< 1.4	< 1.4	< 0.74	< 0.74	< 1.4	62	< 0.74	5.5	< 1.4	< 1.4	
SP02TP05	8'	07/28/1999	10.0	1.39 J	< 0.75	< 1.5	21.6	18.2	< 1.5	< 1.5	< 1.5	< 1.5	7.1	< 0.75	< 1.5	136	60.4	50.5	< 1.5	2 J
SP03TP01	1.5'	07/28/1999	10.0	< 0.7	< 0.7	< 1.4	11.0	< 1.4	< 1.4	< 1.4	< 1.4	< 0.7	1.66 J	1.8 J	< 7	< 0.7	1.7 J	< 1.4	< 1.4	
SP03TP02	4'	07/28/1999	10.0	< 0.74	< 0.74	< 1.4	10.0	< 1.4	< 1.4	< 1.4	< 1.4	< 0.74	1.26 J	< 1.4	22.3 J	< 0.74	< 0.74	< 1.4	< 1.4	

VAP: OHIO EPA VOLUNTARY ACTION PROGRAM REGULATIONS "GENERIC DIRECT-CONTACT SOIL STANDARDS" 1998-2 EDITION

---: NOT ESTABLISHED

B: ANALYTE WAS FOUND IN THE ASSOCIATED BLANK AS WELL AS THE SAMPLE.

J: ESTIMATED VALUE

P: GREATER THAN 25% DIFFERENCE FOR DETECTED CONCENTRATIONS BETWEEN THE TWO GC/HPLC COLUMNS. THE LOWER VALUE IS REPORTED.

SP: SOIL PILE

SB: SOIL BORING

TP: TEST PIT

&lt;: LESS THAN

**TABLE 5**

**DAYTON THERMAL PRODUCTS PLANT  
DAYTON, OHIO**

**STOCKPILED SOILS**

**PCBs AND HERBICIDES**

**CONCENTRATIONS IN MICROGRAMS PER KILOGRAM (ug/kg)**

**POLYCHLORINATED BIPHENYLS PCBs**

NO PCBs WERE DETECTED ABOVE THE LABORATORY METHOD DETECTION LIMIT OF 26 TO 49 ug/kg  
IN THE SP-1-SB-1, SP-1-SB-2, SP-1-SB-3 SAMPLES OR THE SP-1-CP-1 COMPOSITE SAMPLE

NO PCBs WERE DETECTED ABOVE THE LABORATORY METHOD DETECTION LIMIT OF 34 TO 39 ug/kg  
IN SAMPLES SP01TP01 - SP01TP05, SP02TP01 - SP02TP05, SP03TP01 - SP03TP02

**HERBICIDE ORGANICS**

NO HERBICIDE ORGANICS WERE DETECTED ABOVE THE LABORATORY METHOD DETECTION LIMIT OF 2.3 TO 5.8 ug/kg  
IN THE SP-1-SB-1, SP-1-SB-2, AND SP-1-SB-3 SAMPLES

NO HERBICIDE ORGANICS WERE ANALYZED FOR SAMPLES SP01TP01 - SP01TP05, SP02TP01 - SP02TP05, SP03TP01 - SP03TP02

TABLE 6

DAYTON THERMAL PRODUCTS PLANT  
DAYTON, OHIO

STOCKPILED SOILS

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

**VOLATILE ORGANIC COMPOUNDS**

NO TCLP VOLATILE ORGANIC COMPOUNDS WERE DETECTED ABOVE THE LABORATORY METHOD DETECTION LIMIT OF 50 ug/L  
IN THE SP-1-CP-1 COMPOSITE SAMPLE

NO TCLP VOLATILE ORGANIC COMPOUNDS WERE ANALYSED FOR SAMPLES SP01TP01 - SP01TP05, SP02TP01 - SP02TP05, SP03TP01 - SP03TP02

**SEMI-VOLATILE ORGANIC COMPOUNDS**

NO TCLP SEMI-VOLATILE ORGANIC COMPOUNDS WERE DETECTED ABOVE THE LABORATORY METHOD DETECTION LIMITS OF 50 AND 250 ug/L  
IN THE SP-1-CP-1 COMPOSITE SAMPLE

NO TCLP SEMI-VOLATILE ORGANIC COMPOUNDS WERE ANALYSED FOR SAMPLES SP01TP01 - SP01TP05, SP02TP01 - SP02TP05, SP03TP01 - SP03TP02

**PESTICIDE ORGANICS**

NO TCLP PESTICIDE ORGANICS WERE DETECTED ABOVE THE LABORATORY METHOD DETECTION LIMITS OF 0.25 TO 25 ug/L  
IN THE SP-1-CP-1 COMPOSITE SAMPLE

NO TCLP PESTICIDES WERE ANALYSED FOR SAMPLES SP01TP01 - SP01TP05, SP02TP01 - SP02TP05, SP03TP01 - SP03TP02

**HERBICIDE ORGANICS**

NO TCLP HERBICIDE ORGANICS WERE DETECTED ABOVE THE LABORATORY METHOD DETECTION LIMITS OF 2.5 AND 7.5 ug/L  
IN THE SP-1-CP-1 COMPOSITE SAMPLE

NO TCLP HERBICIDES WERE ANALYSED FOR SAMPLES SP01TP01 - SP01TP05, SP02TP01 - SP02TP05, SP03TP01 - SP03TP02

**METALS (mg/L)**

SEE TABLE 3 FOR TCLP METAL CONCENTRATIONS

**TABLE 7**  
**DAYTON THERMAL PRODUCTS PLANT**  
**DAYTON, OHIO**  
**STOCKPILED SOILS**

**INORGANICS**

SAMPLE LOCATION	SAMPLE DEPTH (FEET)	DATE	REACTIVE CYANIDE	TOTAL CYANIDE	IGNITABILITY	CORROSIVITY (pH)	REACTIVE SULFIDE
UNITS	--		mg/kg	mg/kg	FARENHEIT	S.U.	mg/kg
SP-1 - SB-1	4-6'	09/15/1998	<125	<0.57	>140	7.49	<125
SP-1 - SB-2	4.5'	09/15/1998	<125	<0.57	>140	8.12	<125
SP-1 - SB-3	4.5'	09/15/1998	<125	<0.58	>140	8.23	<125
SP-1 - CP-1	COMPOSITE	09/15/1998	--	<0.57	--	--	--
SP01TP01	9'	07/27/1999	< 100	---	DNI	8.00	< 39
SP01TP02	9'	07/27/1999	< 100	---	DNI	8.07	< 39
SP01TP03	9'	07/27/1999	< 100	---	DNI	7.59	< 39
SP01TP04	9'	07/27/1999	< 100	---	DNI	7.86	< 39
SP01TP05	9'	07/27/1999	< 100	---	DNI	7.76	< 39
SP02TP01	8'	07/28/1999	< 100	---	DNI	7.61	< 39
SP02TP02	8'	07/28/1999	< 100	---	DNI	7.8	< 39
SP02TP03	8'	07/28/1999	< 100	---	DNI	8.08	< 39
SP02TP04	8'	07/28/1999	< 100	---	DNI	7.62	< 39
SP02TP05	8'	07/28/1999	< 100	---	DNI	7.84	< 39
SP03TP01	1.5'	07/28/1999	< 100	---	DNI	8.22	< 39
SP03TP02	4'	07/28/1999	< 100	---	DNI	9.01	< 39

<: LESS THAN

>: GREATER THAN

CP: COMPOSITE SAMPLE OF SB-1, SB-2, AND SB-3

SP: SOIL PILE

SB: SOIL BORING

TP: TEST PIT

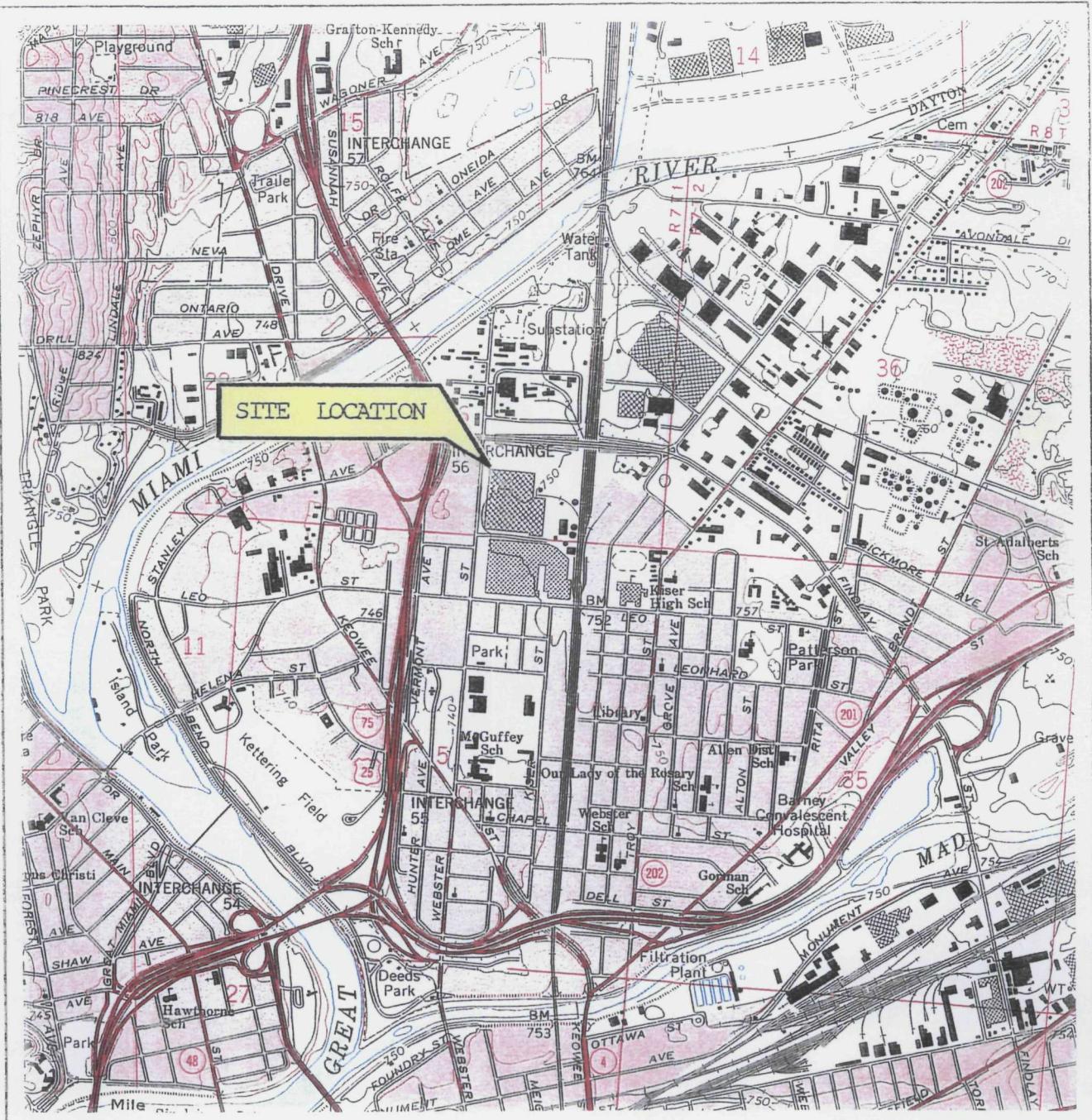
S.U.: STANDARD UNITS

DNI: DID NOT IGNITE IN AIR OR WATER

---: NOT ANALYZED

mg/kg: MILLIGRAM PER KILOGRAM

## **FIGURES**



0 2000



SCALE IN FEET



QUADRANGLE LOCATION

U.S.G.S. TOPOGRAPHIC  
DAYTON NORTH, OHIO  
7.5 MINUTE QUADRANGLE

## DAYTON THERMAL PRODUCTS PLANT DAYTON, OHIO

### AREA LOCATION MAP

DATE	REVISED
FILE:	

PREPARED BY:  
LEGGETTE, BRASHEARS & GRAHAM, INC.  
Professional Ground-Water and Environmental Services  
Northpark Corporate Center  
1210 W. County Road E, Suite 700  
St. Paul, MN 55112  
(612) 490-1405

DATE: JULY 1997 FIGURE: 1

STANLEY AVENUE



PZ-22I

PROPERTY LINE

MWB-4  
PZ-21I

STOCKPILE  
#1  
(CLEAN PILE)

MW-20S  
PZ-20D

PZ-19I  
MW-19S

BLDG #53

BLDG #50

MWA-1

PZ-17I  
PZ-17D

BLDG #47

STOCKPILE  
#4  
(FOURTH PILE)

STOCKPILE  
#3  
(VOC PILE)

STOCKPILE  
#2  
(TPH PILE)

MWC-2  
MWB-2  
MW-18S

MWA-2  
PZ-16D

#### LEGEND



WELL LOCATION



PIEZOMETER LOCATION

0 100

APPROX. SCALE IN FEET

DAYTON THERMAL PRODUCTS PLANT  
DAYTON, OHIO

APPROXIMATE LOCATION OF HISTORICAL STOCKPILES

FILE: 3CHDA08V.DWG DATE: OCTOBER 1999 FIGURE: 2

DATE	REVISED

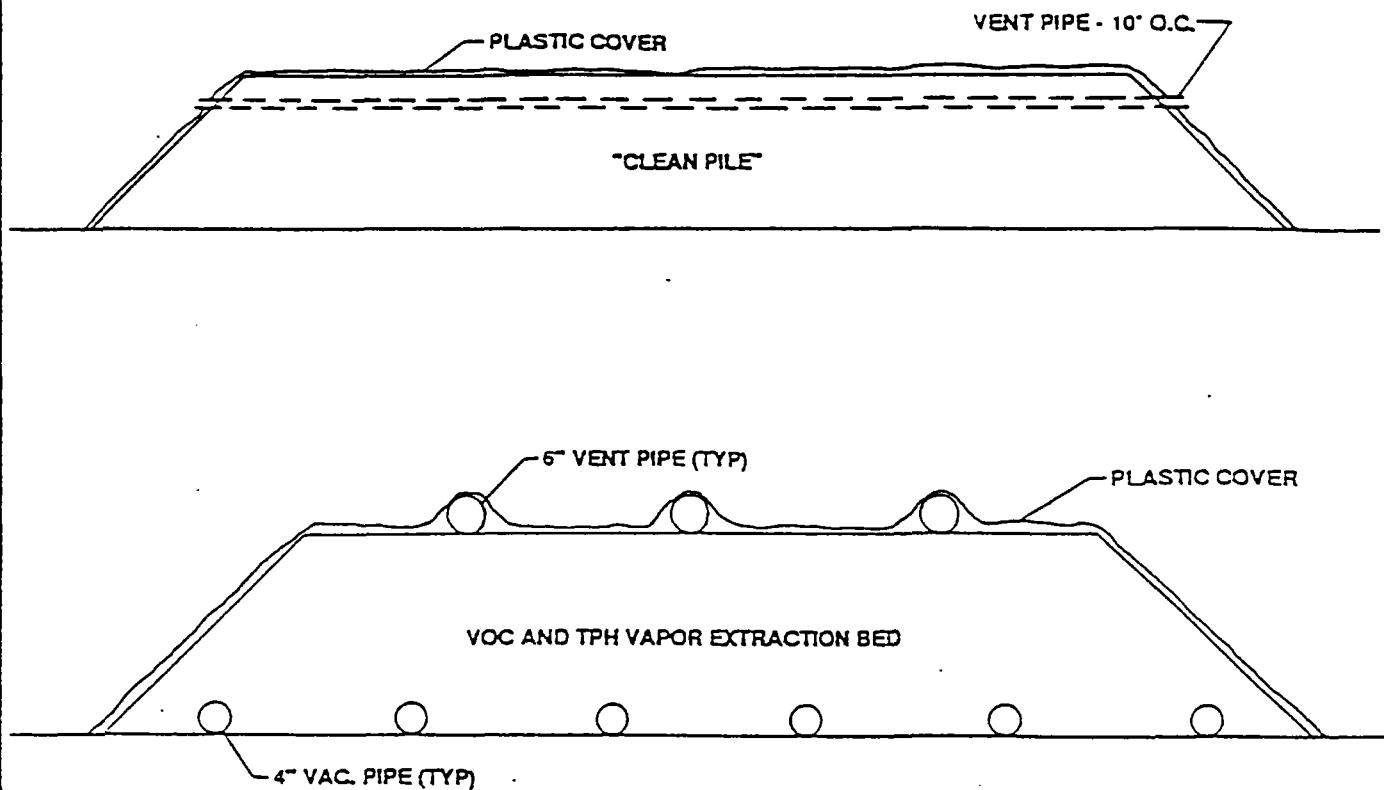
Prepared By:  
LEGGETTE, BRASHEARS & GRAHAM, INC.  
Professional Ground-Water and Environmental Services  
Northpark Corporate Center  
1210 W. County Road E, Suite 700  
St. Paul, MN 55112  
(651) 490-1405

PROJECT  
MANAGER

DOCUMENT  
MANAGER

CHECKED  
BY

DRAWN  
BY



NOTE: Each 750 feet of vacuum pipe is connected by valves and manifold to one blower unit.

APPROXIMATE DIMENSIONS:

"CLEAN" PILE - 210' x 115' x 19' (14,050 cubic yards)  
VOC BED - 200' x 75' x 16' (6,070 cubic yards)  
TPH BED - 195' x 140' x 32' (13,600 cubic yards)

SCALE IS VARIABLE

John Mathes & Associates, Inc.

CONCEPTUAL DESIGN  
"CLEAN" SOIL STOCKPILE AND  
VAPOR EXTRACTION BEDS

ACUSTAR  
DAYTON, OHIO  
423023

FIGURE 3

STANLEY AVENUE



PZ-22I

PROPERTY LINE

MWB-4

PZ-21I

SOIL PILE #3

TP02  
TP01

PZ-19I  
MW-19S

MW-20S  
PZ-20D

BLDG #53

BLDG #50

MWA-1

MWA-2  
PZ-16D

PZ-17I  
PZ-17D

SOIL PILE #1

TP04  
SB-3  
TP03  
TP03

SOIL PILE #2

TP02  
TP01  
TP04  
TP03

TP05

RAMP

BLDG #47

TP01  
SB-2  
TP02  
TP05

MWC-2  
MWB-2  
MW-18S

BLDG #39

MWA-5  
PZ-13I

B & O RAILROAD LINES

#### LEGEND

- WELL LOCATION
- PIEZOMETER LOCATION
- SOIL BORING LOCATION
- TEST PIT LOCATION

0 100

APPROX. SCALE IN FEET

DATE	REVISED

Prepared By:

LEGGETTE, BRASHEARS & GRAHAM, INC.  
Professional Ground-Water and Environmental Services  
Northpark Corporate Center  
1210 W. County Road E, Suite 700  
St. Paul, MN 55112  
(651) 490-1405

DAYTON THERMAL PRODUCTS PLANT  
DAYTON, OHIO

APPROXIMATE LOCATION OF SOIL BORINGS, TEST PITS &  
CURRENT SOIL PILES

FILE: 3CHDA08V.DWG | DATE: OCTOBER 1999 | FIGURE: 4

## **PHOTOGRAPHS**



photo 1: Soil Pile #1 looking south east from the vicinity of SP01TP04.



photo 2: Soil Pile #1 looking south from the vicinity of SP01TP04.

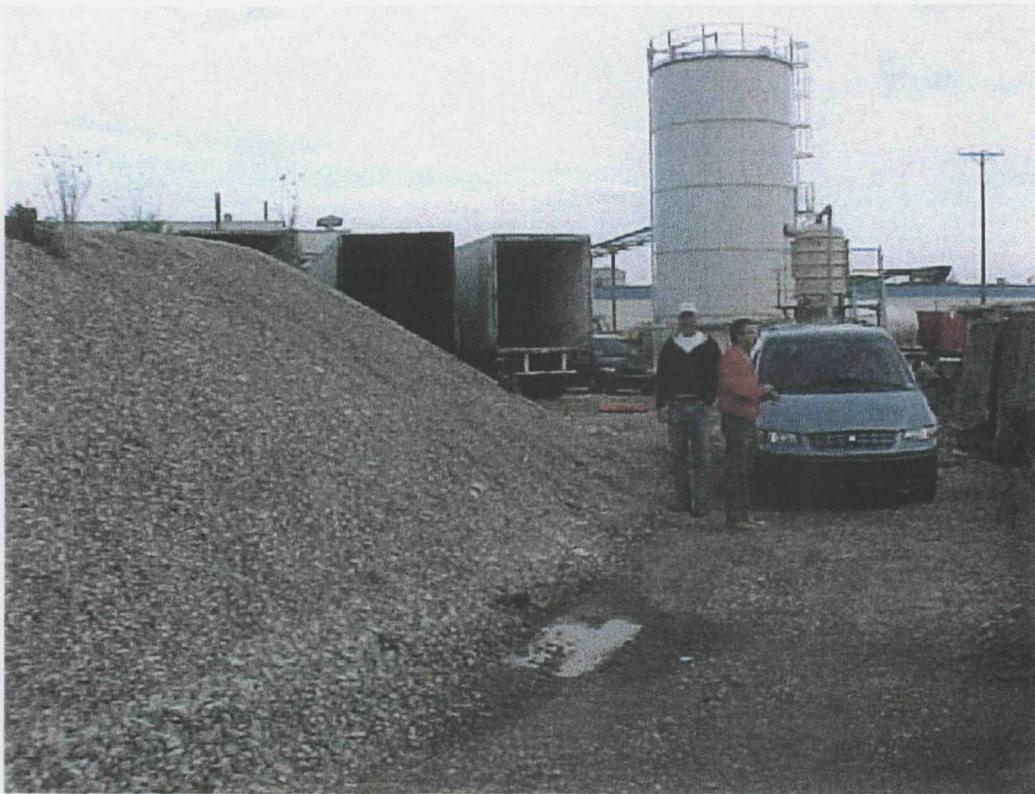


photo 3: Soil Pile #1 embankment on north side of pile.



photo 4: Soil Pile #2 embankment looking east along north side of pile.



photo 5: Soil Pile #2 looking north east from SP01TP04.



photo 6: Soil Pile #2 embankment looking south along the west side of pile.



photo 7: Soil Pile #2 looking south east from SP02TP02.



photo 8: Soil Pile #3 looking south east.

## **APPENDIX I**

### **Field Data Sampling Sheets and Chain-of-Custody Forms**



**CHRYSLER  
CORPORATION**

## SAMPLING RECORD - SOIL

Consultant: Leverett & Sons Inc - Graham Inc	Chrysler RFA Number YGGP 9900241	Date: 7/27/99
PROJECT: Dayton Thermal Products Soil Pile Sampling	Inspector:	
LOCATION: 1600 Webster St. Dayton Ohio	Laboratory:	Lancaster
SITE CODE: 50001	Sampler(s)	
CHRSYLER	Initials	MCF
PM: Gary Stanczak	Chain-of-Custody Number	01507

### Weather/Field Conditions Checklist (Record Major Changes)

Sampling Record Number \_\_\_\_\_

Referenced on page \_\_\_\_ of Field Book Number \_\_\_\_\_

Rev. 0

April 22, 1998

page 1 of 1



**CHRYSLER  
CORPORATION**

**SAMPLING RECORD - SOIL**

Consultant: Lester Brashears + Graham Inc.	Chrysler RFA Number YGP9900241	Date: 7/28/99
PROJECT: Dow Thermal Products Soil File Sampling		Inspector:
LOCATION: 1605 Cooper St. Dayton Ohio		Laboratory: Lancaster
SITE CODE: SCOOI		Sampler(s) Initials Chain-of- Custody Number
CHRYSLER PM: Gary Stanczak		MCP 01507 04980
Weather/Field Conditions Checklist (Record Major Changes)		

### **Weather/Field Conditions Checklist (Record Major Changes)**

Time (24 hr)	Temp (Apprx)	Weather (Gen)	Rel. Humidity (Apprx)	Wind (From)		Ground/Site Surface Conditions	MONITORING	
				Velocity (Apprx)	Direction (0 - 360)		Instrument	Model No.
0700	82 F	overcast	-	Ø	-	dry	OVM	580B

Sampling Record Number \_\_\_\_\_

Referenced on page \_\_\_\_ of Field Book Number \_\_\_\_

Rev. 0

April 22, 1998

page 1 of 1



Soil Pile Sampling  
NE area of site

Chain-of-Custody

01507 A

Complainant: Lancaster Labs  
501 Madison Avenue 2425 New Holland Pike  
Ctry, NC 27513 Lancaster PA 17601-7744  
Phone Number: (1-800) 333-5097/(17) 656-2300  
Fax Number: (619) 279-4050

Project Name: Dayton Thermal Products  
Site Location: Dayton OH  
Site Code: SCB1  
RFA Number: YGAP9900241  
Chrysler PM: Gary Stanczuk

Consultant: Leggette, Binshears, + Graham Inc.  
Address: 1240 W. City Rd 1E, Suite 700  
St. Paul MN 55112  
Consultant PM: Ken Voge  
Phone: (651) 490-1405  
Fax: (651) 490-1006

Turn-around Time Request:  
24 calendar hrs.  
48 calendar hrs.  
10 days 14 days  
28 days

Data Package Deliverables: (circle)  
Chrysler Level 1  
Chrysler Level 2  
Other (specify):

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes  
S - Soil SW - Surface Water  
GW - Groundwater A - Air  
Sed. - Sediment  
O - Other (specify)

Lab Use Only

Volatiles pH <2  
Metals pH <2  
Cyanide pH > 12  
Other

Remarks

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	VOC's 8260B 4 oz glass, no preserv.	SVOCl 8 oz glass, no preserv.	TCLP 1311, 8 oz glass, no preserv.	Pesticides 8 oz glass, no preserv.	PCBs 8 oz glass, no preserv.	React., Ignit., Corros. 8 oz glass, no preserv.	MET metals (titratable) 8 oz glass, no preserv.	Percent moisture 8 oz glass, no preserv.
SPØ1TPØ1	7/27/99	13:10	G	S	5	X	X	X	X	X	X	X	X
SPØ1TPØ2		14:00			5	X	X	X	X	X	X	X	X
SPØ1TPØ3		14:30			5	X	X	X	X	X	X	X	X
SPØ1TPØ4		14:55			5	X	X	X	X	X	X	X	X
SPØ1TPØ5		16:20			5	X	X	X	X	X	X	X	X
SPØ2TPØ1	7/28/99	08:30			5	X	X	X	X	X	X	X	X
SPØ2TPØ2		09:00			5	X	X	X	X	X	X	X	X
SPØ2TPØ3		09:25			5	X	X	X	X	X	X	X	X
SPØ2TPØ4		09:50			5	X	X	X	X	X	X	X	X
SPØ2TPØ5		10:10	V	V	5	X	X	X	X	X	X	X	X

Sampler(s)

M. Lee Plante

Bottles Relinquished under Airbill No.

N/A

Samples Relinquished under Airbill No.

812756632672

Temperature (corrected) 30°C

Relinquished by:

M. Lee Plante

Date:

7/28/99 16:30

Time:

Received by:

Date:

Time:

Custody Seal Intact?

Yes No

Cooler ID # N/A

Is RFA sampling complete?

Yes No

Relinquished by:

Date:

Time:

Relinquished by:

Date:

Time:

Received for Laboratory by:

Jerry Koenig

Received by:

Date:

Time:

Custody Seal Intact?

Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-0051, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

SDG 241-A



The logo consists of a stylized five-pointed star inside a hexagonal frame, followed by the text "CHRYSLER CORPORATION" in a bold, sans-serif font.

## Soil Pile Sampling

## Chain-of-Custody

04980 A

Lancaster Labs  
501 Madison Avenue 2925 New Holland Pike  
Lancaster, PA 17601-  
Phone Number: 1-800-833-5097 (717)656-2300  
Fax Number: (717) 370-4050

Project Name: Dayton Thermal Products  
Site Location: Dayton OH  
Site Code: SC8101  
RFA Number: YCGQP99C09241  
Chrysler PM: 131-1873-1

Consultant: Leggette, Brashears + Graham Inc  
Address: 1218 W. Cnty Rd. E Suite 700  
St. Paul MN 55113  
Consultant PM: Ken Vogel  
Phone (612) 480-1115 Fax (612) 480-1006

**Turn-around Time Request:**  
24 calendar hrs.  
48 calendar hrs.  
10 days / 14 days  
28 days

**Data Package Deliverables:** (circle)

Chrysler Level 1

Chrysler Level 2

Other (specify):

**Compound List-Parameter/Methylcellulose Type/Preservative**

### **Matrix Codes**

SW - Surface Water  
A - Air

**Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757**

Distribution: White copy: Data package Yellow : Retained by laboratory Pink: Retained by sample

SDG = 241 A

## **APPENDIX II**

### **Lab Analytical Sheets**



AUG 23 1999

Page: 1 of 13

ENTERED & VIEWED  
BY DATE 8/26/99  
CHECKED BY DATE 8/26/99  
P.O. N99C403749-A  
Rel. YGQP9900241

LII Sample No. SW 3202268  
Collected: 07/27/99 at 13:10 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

SP01TP01 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT	
		RESULTS	METHOD	DETECTION LIMIT	RESULTS	METHOD
6292	TCL by 8260 (soil)				See Page	2
1225	TCL Pesticides in Solids				See Page	3
4688	TCL SW846 Semivolatiles Soil				See Page	4
4689	TCL SW846 Semivolatiles/Soil				See Page	5
1123	Cyanide (Reactivity)	N.D.	100.	mg/kg		
0111	Moisture	14.7	0.50	% by wt.		
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.					
0394	pH	8.00	0.010			
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					
0496	Corrosivity	See Below		1.0	See Below	
	Corrosivity:					
	The pH of a 1:1 slurry (with deionized water) was 8.00 indicating that the waste is not corrosive.					
	A waste is corrosive if it exhibits a pH equal to or less than 2 or equal to or greater than 12.5.					
0542	Ignitability	See Below			See Below	
	The sample did not spontaneously ignite when exposed to air or water.					
	The sample did not ignite by friction.					
	The sample vapors did not ignite when exposed to a flame using a closed cup apparatus.					
1121	Reactivity	See Below			See Below	
	Reactivity:					
	The sample was extracted by the interim method described in SW 846, Chapter 7.3. This solution was analyzed for cyanide and sulfide.					
	This waste is not considered reactive and hazardous because it does not generate a quantity of hydrogen cyanide exceeding 250 mg/kg or hydrogen sulfide exceeding 500 mg/kg. These interim threshold limits were established by the Solid Waste Branch of EPA, July, 1992. These results do not reflect total cyanide or total sulfide.					
1122	Sulfide (Reactivity)	N.D.	39.	mg/kg		
	The relative percent difference (RPD) between the MS and MSD on the batch associated with this sample was 21%. The acceptable RPD for this analysis is 20%. The MS and MSD were both within specifications.					

1 COPY TO Leggette, Brashears &amp; Graham ATTN: Mr. Ken Vogel

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300  
21:15:36 0 0001 25 138873 676387  
885 0.00 00072200 ASR000

Respectfully Submitted  
Duane A. Luckenbill, B.S.  
Group Leader, GC/MS Volatiles

Lancaster Laboratories  
1401 New Holland Pike  
P.O. Box 11420  
Lancaster, PA 17605-2425  
(717) 656-2300 Fax (717) 656-2681 See reverse side for explanation of symbols and abbreviations

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1216 Rev 2/20/99

LLI Sample No. SW 3202268

Collected: 07/27/99 at 13:10 by MP

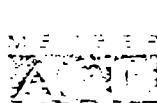
Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99SP01TP01 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933P.O. N99C403749-A  
Re1. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT	RESULTS	METHOD	DETECTION LIMIT
<b>TCL by 8260 (soil)</b>							
5444	Chlormethane	N.D.	2.	ug/kg	N.D.	2.	
5446	Bromomethane	N.D.	3.	ug/kg	N.D.	4.	
5445	Viny Chloride	N.D.	2.	ug/kg	N.D.	2.	
5447	Chlcroethane	N.D.	3.	ug/kg	N.D.	4.	
5450	Methylene Chloride	9.	2.	ug/kg	10.	2.	
6293	Acetone	17.	J	7.	ug/kg	19.	J
6294	Carbon Disulfide	N.D.	3.	ug/kg	N.D.	4.	
5449	1,1-Dichlcroethene	N.D.	2.	ug/kg	N.D.	2.	
5452	1,1-Dichlcroethane	9.	1.	ug/kg	11.	1.	
5455	Chloroform	N.D.	1.	ug/kg	N.D.	1.	
5461	1,2-Dichlcroethane	N.D.	2.	ug/kg	N.D.	2.	
6295	2-Butanone	N.D.	7.	ug/kg	N.D.	8.	
5457	1,1,1-Trichloroethane	2.	J	1.	ug/kg	2.	J
5458	Carbon Tetrachloride	N.D.	1.	ug/kg	N.D.	1.	
5465	Bromodichloromethane	N.D.	2.	ug/kg	N.D.	2.	
5480	1,1,2,2-Tetrachloroethane	N.D.	1.	ug/kg	N.D.	1.	
5463	1,2-Dichloropropane	N.D.	3.	ug/kg	N.D.	4.	
6297	trans-1,3-Dichloropropene	N.D.	1.	ug/kg	N.D.	1.	
5462	Trichloroethene	27.		1.	ug/kg	32.	1.
5470	Dibromochloromethane	N.D.	1.	ug/kg	N.D.	1.	
5467	1,1,2-Trichloroethane	N.D.	2.	ug/kg	N.D.	2.	
5460	Benzene	N.D.	1.	ug/kg	N.D.	1.	
6298	cis-1,3-Dichloropropene	N.D.	1.	ug/kg	N.D.	1.	
5478	Bromoform	N.D.	1.	ug/kg	N.D.	1.	
6299	4-Methyl-2-pantanone	N.D.	3.	ug/kg	N.D.	4.	
6300	2-Hexanone	N.D.	3.	ug/kg	N.D.	4.	
5468	Tetrachloroethene	2.	J	1.	ug/kg	2.	J
5466	Toluene	N.D.	1.	ug/kg	N.D.	1.	
5472	Chlorobenzene	N.D.	1.	ug/kg	N.D.	1.	
5474	Ethylbenzene	N.D.	1.	ug/kg	N.D.	1.	
5477	Styrene	N.D.	1.	ug/kg	N.D.	1.	
6301	Xyrene (Total)	N.D.	1.	ug/kg	N.D.	1.	
5451	trans-1,2-Dichloroethene	N.D.	2.	ug/kg	N.D.	2.	
5454	cis-1,2-Dichloroethene	10.		2.	ug/kg	11.	2.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300


 Lancaster Laboratories  
 1403 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681

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 See reverse side for explanation of symbols and abbreviations.

 Respectfully Submitted  
 Duane A. Luckenbill, B.S.  
 Group Leader, GC/MS Volatiles

LLI Sample No. SW 3202268

Collected: 07/27/99 at 13:10 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99SPO1TP01 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

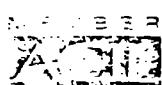
Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933P.O. N99C403749-A  
Re1. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT UNITS	RESULTS	METHOD	DETECTION LIMIT
<b>TCL Pesticides in Solids</b>							
1981	Alpha BHC	N.D.	0.67	ug/kg	N.D.	0.79	
1982	Beta BHC	N.D.	0.67	ug/kg	N.D.	0.79	
1983	Delta BHC	N.D.	0.67	ug/kg	N.D.	0.79	
1218	Gamma BHC - Lindane	N.D.	0.67	ug/kg	N.D.	0.79	
1219	Heptachlor	N.D.	0.67	ug/kg	N.D.	0.79	
1220	Aldrin	N.D.	0.67	ug/kg	N.D.	0.79	
1984	Heptachlor Epoxide	1.27	J	0.67 ug/kg	1.49	J	0.79
1989	Endosulfar I	N.D.	0.67	ug/kg	N.D.	0.79	
1222	Dieldrin	N.D.	1.3	ug/kg	N.D.	1.5	
1985	DDE	N.D.	1.3	ug/kg	N.D.	1.5	
1223	Endrin	N.D.	1.3	ug/kg	N.D.	1.5	
1990	Endosulfar II	N.D.	1.3	ug/kg	N.D.	1.5	
1986	DDD	N.D.	1.3	ug/kg	N.D.	1.5	
1991	Endosulfan Sulfate	N.D.	1.3	ug/kg	N.D.	1.5	
1221	DDT	N.D.	1.3	ug/kg	N.D.	1.5	
3017	Endrin Ketone	N.D.	1.3	ug/kg	N.D.	1.5	
1859	Methoxychlor	30.8	J	6.7 ug/kg	36.1	J	7.9
3025	Alpha Chlordane	N.D.	0.67	ug/kg	N.D.	0.79	
3026	Gamma Chlordane	1.50	J	0.67 ug/kg	1.76	J	0.79
1988	Toxaphene	N.D.	67.	ug/kg	N.D.	79.	
1992	Endrin Aldehyde	N.D.	1.3	ug/kg	N.D.	1.5	
1993	PCB-1016	N.D.	33.	ug/kg	N.D.	39.	
1994	PCB-1221	N.D.	33.	ug/kg	N.D.	39.	
1995	PCB-1232	N.D.	33.	ug/kg	N.D.	39.	
1996	PCB-1242	N.D.	33.	ug/kg	N.D.	39.	
1997	PCB-1248	N.D.	33.	ug/kg	N.D.	39.	
1998	PCB-1254	N.D.	33.	ug/kg	N.D.	39.	
1999	PCB-1260	N.D.	33.	ug/kg	N.D.	39.	

Due to the nature of the sample matrix, a dilution of the sample was used for analysis. The Limits of Quantitation (LOQ's) were raised accordingly.

This analysis was performed at a 10x dilution of the original sample.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300



Lancaster Laboratories  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681

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See reverse side for explanation of symbols and abbreviations.

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs

2215



LLI Sample No. SW 3202268

Collected: 07/27/99 at 13:10 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

SP01TP01 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

P.O. N99C403749-A  
Re1. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT UNITS	RESULTS	METHOD	DETECTION LIMIT
TCL SWE46 Semivolatiles Soil							
1185	Phenol	N.D.	67.	ug/kg	N.D.	79.	
3753	bis(2-Chloroethyl)ether	N.D.	33.	ug/kg	N.D.	39.	
1186	2-Chlorophenol	N.D.	33.	ug/kg	N.D.	39.	
3754	1,3-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
1187	1,4-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
3755	1,2-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
4690	2-Methylphenol	N.D.	33.	ug/kg	N.D.	39.	
4691	2,2'-oxybis(1-Chloropropane)	N.D.	33.	ug/kg	N.D.	39.	
4692	4-Methylphenol	N.D.	67.	ug/kg	N.D.	79.	
1188	N-Nitroso-di-n-propylamine	N.D.	33.	ug/kg	N.D.	39.	
3757	Hexachloroethane	N.D.	33.	ug/kg	N.D.	39.	
3758	Nitrobenzene	N.D.	33.	ug/kg	N.D.	39.	
3759	Isophorone	N.D.	33.	ug/kg	N.D.	39.	
3746	2-Nitrophenol	N.D.	67.	ug/kg	N.D.	79.	
3747	2,4-Dimethylphenol	N.D.	67.	ug/kg	N.D.	79.	
3760	bis(2-Chloroethoxy)methane	N.D.	67.	ug/kg	N.D.	79.	
3748	2,4-Dichlorophenol	N.D.	67.	ug/kg	N.D.	79.	
1189	1,2,4-Trichlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
3761	Naphthalene	N.D.	33.	ug/kg	N.D.	39.	
4693	4-Chloroaniline	N.D.	33.	ug/kg	N.D.	39.	
3762	Hexachlorobutadiene	N.D.	67.	ug/kg	N.D.	79.	
1190	4-Chloro-3-methylphenol	N.D.	67.	ug/kg	N.D.	79.	
4694	2-Methylnaphthalene	N.D.	33.	ug/kg	N.D.	39.	
3763	Hexachlorocyclopentadiene	N.D.	170.	ug/kg	N.D.	200.	
3749	2,4,6-Trichlorophenol	N.D.	67.	ug/kg	N.D.	79.	
4695	2,4,5-Trichlorophenol	N.D.	67.	ug/kg	N.D.	79.	
3764	2-Chloronaphthalene	N.D.	33.	ug/kg	N.D.	39.	
4696	2-Nitroaniline	N.D.	33.	ug/kg	N.D.	39.	
3766	Dimethylphthalate	N.D.	67.	ug/kg	N.D.	79.	
3765	Acenaphthylenne	N.D.	33.	ug/kg	N.D.	39.	

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted  
Charles J. Neslund, B.S.  
Group Leader, GC/MS SVOA

Lancaster Laboratories  
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PO Box 2425  
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Phone: 717-656-2300 Fax: 717-656-2581 See reverse side for explanation of symbols and abbreviations.



LLI Sample No. SW 3202268

Collected: 07/27/99 at 13:10 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

SP01TP01 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

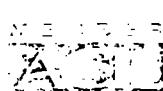
P.O. N99C403749-A  
ReL. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT UNITS	RESULTS	METHOD	DETECTION LIMIT
TCL SW846 Semivolatiles/Soil							
4697	3-Nitroaniline	N.D.	67.	ug/kg	N.D.	79.	
1191	Acenaphthene	39.	J	33.	ug/kg	46.	J 39.
3750	2,4-Dinitrophenol	N.D.	230.	ug/kg	N.D.	270.	
1192	4-Nitrophenol	N.D.	170.	ug/kg	N.D.	200.	
4698	Dibenzofuran	N.D.	33.	ug/kg	N.D.	39.	
1193	2,4-Dinitrotoluene	N.D.	67.	ug/kg	N.D.	79.	
3767	2,6-Dinitrotoluene	N.D.	33.	ug/kg	N.D.	39.	
3770	Diethylphthalate	N.D.	67.	ug/kg	N.D.	79.	
3769	4-Chlorophenyl-phenylether	N.D.	33.	ug/kg	N.D.	39.	
3768	Fluorene	48.	J	33.	ug/kg	56.	J 39.
4700	4-Nitroaniline	N.D.	67.	ug/kg	N.D.	79.	
3751	4,6-Dinitro-2-methylphenol	N.D.	170.	ug/kg	N.D.	200.	
3772	N-Nitrosodiphenylamine	N.D.	33.	ug/kg	N.D.	39.	
3773	4-Bromophenyl-phenylether	N.D.	67.	ug/kg	N.D.	79.	
3774	Hexachlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
1194	Pentachlorophenol	N.D.	170.	ug/kg	N.D.	200.	
3775	Phenanthrene	710.		33.	ug/kg	830.	39.
3776	Anthracene	200.	J	33.	ug/kg	230.	J 39.
4702	Carbazole	87.	J	33.	ug/kg	100.	J 39.
3777	Di-n-butylphthalate	N.D.	67.	ug/kg	N.D.	79.	
3778	Fluoranthene	1,200.		33.	ug/kg	1,400.	39.
1195	Pyrene	1,100.		33.	ug/kg	1,200.	39.
3780	Butylbenzylphthalate	N.D.	67.	ug/kg	N.D.	79.	
3783	3,3'-Dichlorobenzidine	N.D.	67.	ug/kg	N.D.	79.	
3781	Benzo(a)anthracene	580.		33.	ug/kg	680.	39.
3784	bis(2-Ethylhexyl)phthalate	N.D.	67.	ug/kg	N.D.	79.	
3782	Chrysene	580.		33.	ug/kg	680.	39.
3785	Di-n-octylphthalate	N.D.	67.	ug/kg	N.D.	79.	
3786	Benzo(b)fluoranthene	560.		33.	ug/kg	660.	39.
3787	Benzo(k)fluoranthene	240.	J	33.	ug/kg	280.	J 39.
3788	Benzo(a)pyrene	400.		33.	ug/kg	470.	39.
3789	Indeno(1,2,3-cd)pyrene	250.	J	33.	ug/kg	290.	J 39.
3790	Dibenz(a,h)anthracene	75.	J	33.	ug/kg	88.	J 39.
3791	Benzo(g,h,i)perylene	210.	J	33.	ug/kg	250.	J 39.

N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine.  
The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted  
Charles J. Neslund, B.S.  
Group Leader, GC/MS SVOA



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8431 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425

1-877-656-2300 Fax: 717-656-2681

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221 11 11 11



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Where quality is a science.

Page: 6 of 13

LLI Sample No. SW 3202268

Collected: 07/27/99 at 13:10 by MP

Submitted: 07/29/99

SPO1TP01 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH  
 ITPC1 SD#:

Account No: 10160  
 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

CAT NO	ANALYSIS NAME	METHOD	TRIAL ID	ANALYSIS DATE AND TIME	ANALYST
6292	TCL by 8260 (soil)	SW-846 8260B	1	08/03/99 1458	Michael E. McAdams
0819	Solid Sample Pesticide Extract	SW-846 3550B	1	07/31/99 0720	Ginelle L. Haines
1225	TCL Pesticides in Solids	SW-846 8081A/8082	1	08/04/99 0453	Douglas D. Seitz
0381	BNA Soil Extraction	SW-846 3550B	1	08/03/99 2000	Karen L. Beyer
4688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	08/05/99 0600	Michele A. Jarosick
4689	TCL SW846 Semivolatiles/Soil	SW-846 8270C	1	08/05/99 0600	Michele A. Jarosick
1123	Cyanide (Reactivity)	SW-846 9012	1	08/05/99 2153	Venia M. McFadden
0111	Moisture	EPA 160.3 modified	1	08/01/99 1929	Gabriel Agosto
0394	pH	SW-846 9045C (modified)	1	08/03/99 2200	Luz M. Groff
C542	Ignitability	40 CFR 261.21	1	08/04/99 1130	Catherine L. Cammauf
1121	Reactivity	SW-846 Chapter 7.3	1	08/05/99 0805	Susan E. Hibner
1122	Sulfide (Reactivity)	SW-846 9034	1	08/05/99 0805	Susan E. Hibner



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13111-1000

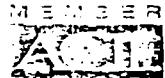


LLI Sample No. 3202268

SP01TP01 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Group No. 676387  
Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
6292 TCL by 8260 (soil)		Batch: E992121AD									
5444 Chloromethane	2. ug/kg	N.D.		105	108	2	104			48	130
5446 Bromomethane	3. ug/kg	N.D.		99	108	9	99			46	134
5445 Vinyl Chloride	2. ug/kg	N.D.		108	113	5	100			60	127
5447 Chloroethane	3. ug/kg	N.D.		99	104	5	96			30	142
5450 Methylene Chloride	2. ug/kg	N.D.		9	1	6	104			69	126
6293 Acetone	7. ug/kg	N.D.		104	99	6	78			46	133
6294 Carbon Disulfide	3. ug/kg	N.D.		96	97	1	88			52	165
5449 1,1-Dichloroethene	2. ug/kg	N.D.		112	112	0	103			69	146
5452 1,1-Dichloroethane	1. ug/kg	N.D.		113	117	3	114			81	130
5455 Chloroform	1. ug/kg	N.D.		107	114	7	113			82	123
5461 1,2-Dichloroethane	2. ug/kg	N.D.		103	109	6	115			81	123
6296 2-Butanone	7. ug/kg	N.D.		114	117	2	110			47	153
5457 1,1,1-Trichloroethane	1. ug/kg	N.D.		110	115	4	120			84	132
5458 Carbon Tetrachloride	1. ug/kg	N.D.		109	116	6	121			78	129
5465 Bromodichloromethane	2. ug/kg	N.D.		106	112	6	114			80	121
5480 1,1,2,2-Tetrachloroethane	1. ug/kg	N.D.		108	108	0	101			70	124
5463 1,2-Dichloropropane	3. ug/kg	N.D.		113	117	4	114			77	127
6297 trans-1,3-Dichloropropene	1. ug/kg	N.D.		103	108	4	105			69	131
5462 Trichloroethene	1. ug/kg	N.D.		111	116	5	112			81	123
5470 Dibromochloromethane	1. ug/kg	N.D.		106	109	3	112			80	120
5467 1,1,2-Trichloroethane	2. ug/kg	N.D.		111	110	1	108			81	124
5460 Benzene	1. ug/kg	N.D.		116	119	2	113			77	126
6298 cis-1,3-Dichloropropene	1. ug/kg	N.D.		110	115	4	112			79	126



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LLI Sample No. 3202268

SP01TP01 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Group No. 676387  
Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
5478	Bromoform										
	1. ug/kg	N.D.		102	101	1	107			73	120
6299	4-Methyl-2-pentanone										
	3. ug/kg	N.D.		102	108	6	110			63	123
6300	2-Hexanone										
	3. ug/kg	N.D.		105	107	1	104			60	128
5468	Tetrachloroethene										
	1. ug/kg	N.D.		115	120	4	114			83	150
5466	Toluene										
	1. ug/kg	N.D.		114	113	1	105			74	128
5472	Chlorobenzene										
	1. ug/kg	N.D.		114	112	2	108			81	121
5474	Ethylbenzene										
	1. ug/kg	N.D.		117	116	0	112			85	129
5477	Styrene										
	1. ug/kg	N.D.		116	114	2	108			84	127
6301	Xylene (Total)										
	1. ug/kg	N.D.		117	116	1	111			88	128
5451	trans-1,2-Dichloroethene										
	2. ug/kg	N.D.		115	119	4	111			73	126
5454	cis-1,2-Dichloroethene										
	2. ug/kg	N.D.		113	117	3	112			84	123

225 TCL Pesticides in Solids Batch: 992110011A

1981	Alpha BHC										
	0.67 ug/kg	N.D.		84	85	1	102			38	156
1982	Beta BHC										
	0.67 ug/kg	N.D.		94	93	1	97			40	153
1983	Delta BHC										
	0.67 ug/kg	N.D.		76	76	0	97			44	145
1218	Gamma BHC - Lindane										
	0.67 ug/kg	N.D.		84	83	1	102			51	142
1219	Heptachlor										
	0.67 ug/kg	N.D.		85	81	5	100			59	140
1220	Aldrin										
	0.67 ug/kg	N.D.		105	100	4	100			55	132
1984	Heptachlor Epoxide										
	0.67 ug/kg	N.D.		93	91	2	99			58	129
1989	Endosulfan I										
	0.67 ug/kg	N.D.		185	185	0	81			56	123
1222	Dieldrin										
	1.3 ug/kg	N.D.		86	85	1	90			63	133
1985	DDE										
	1.3 ug/kg	N.D.		102	101	1	101			47	159
1223	Endrin										
	1.3 ug/kg	N.D.		105	104	0	112			70	150
1990	Endosulfan II										
	1.3 ug/kg	N.D.		44	51	16	89			46	138



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LLI Sample No. 3202268

SP01TP01 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS LCS DUP	LCS RPD	LCS LCS LOW	LIMITS HIGH
1986 DDD	1.3 ug/kg	N.D.		108	107	1	101		53	141
1991 Endosulfan Sulfate	1.3 ug/kg	N.D.		88	84	5	108		40	150
1221 DDT	1.3 ug/kg	N.D.		107	107	0	110		60	138
3017 Endrin Ketone	1.3 ug/kg	N.D.		90	90	0	92		62	137
1859 Methoxychlor	6.7 ug/kg	N.D.		132	124	6	128		52	174
3025 Alpha Chlordane	0.57 ug/kg	N.D.		151	149	1	100		68	141
3026 Gamma Chlordane	0.57 ug/kg	N.D.		100	97	2	97		65	129
1988 Toxaphene	67 ug/kg	N.D.								
1992 Endrin Aldehyde	1.3 ug/kg	N.D.		82	82	1	83		75	125
1993 PCE-1016	33 ug/kg	N.D.								
1994 PCE-1221	33 ug/kg	N.D.								
1995 PCE-1232	33 ug/kg	N.D.								
1996 PCE-1242	33 ug/kg	N.D.								
1997 PCE-1248	33 ug/kg	N.D.								
1998 PCE-1254	33 ug/kg	N.D.								
1999 PCB-1260	33 ug/kg	N.D.								
588 TCL SW846 Semivolatiles	Soil	Batch: 99215SLD026								

1185 Phenol	67 ug/kg	N.D.	63	49	24	87			40	128
3753 bis(2-Chloroethyl)ether	33 ug/kg	N.D.	58	42	32	91			38	131
1186 2-Chlorophenol	33 ug/kg	N.D.	62	47	28	90			44	127
3754 1,3-Dichlorobenzene	33 ug/kg	N.D.	44	28	44	87			31	121
1187 1,4-Dichlorobenzene	33 ug/kg	N.D.	44	29	43	86			36	119
3755 1,2-Dichlorobenzene	33 ug/kg	N.D.	48	31	42	88			39	120
4690 2-Methylphenol	33 ug/kg	N.D.	61	48	25	89			42	127

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2216 Rev 3/22/01



LLI Sample No. 3202268

 SP01TP01 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

 Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
4691	2,2'-oxybis(1-Chloropropane)										
33.	ug/kg	N.D.		54	38	34	88			38	151
4692	4-Methylphenol										
67.	ug/kg	N.D.		62	49	23	89			33	139
1188	N-Nitrosodi-n-propylamine										
33.	ug/kg	N.D.		64	49	26	92			39	142
3757	Hexachloroethane										
33.	ug/kg	N.D.		44	28	44	89			29	128
3758	Nitrobenzene										
33.	ug/kg	N.D.		59	44	29	91			42	131
3759	Isophorone										
33.	ug/kg	N.D.		61	47	25	89			46	130
3746	2-Nitrophenol										
67.	ug/kg	N.D.		65	50	28	97			36	141
3747	2,4-Dimethylphenol										
67.	ug/kg	N.D.		60	48	22	90			40	132
3760	bis(2-Chloroethoxy)methane										
67.	ug/kg	N.D.		63	49	26	93			44	127
3748	2,4-Dichlorophenol										
67.	ug/kg	N.D.		64	50	23	91			41	128
1189	1,2,4-Trichlorobenzene										
33.	ug/kg	N.D.		54	39	32	92			44	121
3761	Naphthalene										
33.	ug/kg	N.D.		55	41	31	89			34	133
4693	4-Chloroaniline										
33.	ug/kg	N.D.		50	41	18	42			1	113
3762	Hexachlorobutadiene										
67.	ug/kg	N.D.		52	36	36	92			39	133
1190	4-Chloro-3-methylphenol										
67.	ug/kg	N.D.		65	52	22	93			47	135
4694	2-Methylphthalene										
33.	ug/kg	N.D.		59	45	27	90			43	131
3763	Hexachlorocyclopentadiene										
170.	ug/kg	N.D.		35	24	38	59			1	141
3749	2,4,6-Trichlorophenol										
67.	ug/kg	N.D.		64	52	22	90			39	141
4695	2,4,5-Trichlorophenol										
67.	ug/kg	N.D.		64	52	21	87			45	136
3764	2-Chloronaphthalene										
33.	ug/kg	N.D.		64	51	23	92			48	127
4696	2-Nitroaniline										
33.	ug/kg	N.D.		71	58	21	101			25	139
3766	Dimethylphthalate										
67.	ug/kg	N.D.		67	55	21	95			53	127
3765	Acenaphthylene										
33.	ug/kg	N.D.		62	50	21	89			44	126

589 TCL SW846 Semivolatiles/Soil Batch: 99215SLD026


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2215 Rev 3 2011



LLI Sample No. 3202268

SP01TP01 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

SAMPLE MD.	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
4697	3-Nitroaniline										
57.	ug/kg	N.D.		61	52	17	66			18	117
1191	Acenaphthene										
33.	ug/kg	N.D.		63	51	21	91			47	127
3750	2,4-Dinitrophenol										
230.	ug/kg	N.D.		35	26	29	55			1	133
1192	4-Nitrophenol										
170.	ug/kg	N.D.		60	46	27	83			31	161
4698	Dibenzofuran										
33.	ug/kg	N.D.		66	54	21	93			53	125
1193	2,4-Dinitrotoluene										
67.	ug/kg	N.D.		67	54	21	95			50	131
3767	2,6-Dinitrotoluene										
33.	ug/kg	N.D.		71	58	21	103			53	130
3770	Diethylphthalate										
57.	ug/kg	N.D.		68	56	20	97			54	130
3769	4-Chlorophenyl-phenylether										
33.	ug/kg	N.D.		67	54	21	92			47	132
3768	Fluorene										
33.	ug/kg	N.D.		65	53	20	92			42	142
4700	4-Nitroaniline										
67.	ug/kg	N.D.		64	52	20	86			30	127
3751	4,6-Dinitro-2-methylphenol										
170.	ug/kg	N.D.		52	37	33	76			14	143
3772	N-Nitrosodiphenylamine										
33.	ug/kg	N.D.		70	57	21	97			49	130
3773	4-Bromophenyl-phenylether										
67.	ug/kg	N.D.		70	57	22	96			53	132
3774	Hexachlorobenzene										
33.	ug/kg	N.D.		70	56	22	95			40	144
1194	Pentachlorophenol										
170.	ug/kg	N.D.		34	22	41	61			20	132
3775	Phenanthrene										
33.	ug/kg	N.D.		69	45	30	94			42	141
3776	Anthracene										
33.	ug/kg	N.D.		69	52	25	95			45	132
4702	Carbazole										
33.	ug/kg	N.D.		70	55	23	94			48	129
3777	Di-n-butylphthalate										
67.	ug/kg	N.D.		71	56	23	97			54	133
3778	Fluoranthene										
33.	ug/kg	N.D.		64	36	33	92			37	142
1195	Pyrene										
33.	ug/kg	N.D.		67	43	28	103			34	145
3780	Butylbenzylphthalate										
67.	ug/kg	N.D.		72	59	21	104			47	138
3783	3,3'-Dichlorobenzidine										
67.	ug/kg	N.D.		58	50	15	69			2	132
3781	Benzo(a)anthracene										
33.	ug/kg	N.D.		69	47	29	94			44	133

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 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

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SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
3784 bis(2-Ethylhexyl)phthalate											
67.	ug/kg	N.D.		77	62	21	109			41	145
3782 Chrysene											
33.	ug/kg	N.D.		69	47	29	96			42	136
3785 Di-n-octylphthalate											
67.	ug/kg	N.D.		83	67	21	117			43	156
3786 Benzo(b)fluoranthene											
33.	ug/kg	N.D.		63	45	24	94			35	140
3787 Benzo(k)fluoranthene											
33.	ug/kg	N.D.		71	54	25	99			38	145
3788 Benzo(a)pyrene											
33.	ug/kg	N.D.		67	50	23	98			38	141
3789 Indeno(1,2,3-cd)pyrene											
33.	ug/kg	N.D.		66	53	20	98			30	153
3790 Dibenz(a,h)anthracene											
33.	ug/kg	N.D.		70	56	21	97			32	151
3791 Benzo(g,h,i)perylene											
33.	ug/kg	N.D.		68	53	22	97			29	151
1123 Cyanide (Reactivity)		Batch: 99217104201									
100.	mg/kg	N.D.	0 (1)	3	2	37	105			88	121
111 Moisture		Batch: 992130091820002A									
0.50	% by wt.		1				100	100	0	99	101
0394 pH		Batch: 992150239039400A									
0.010			0				99	100	1	98	102
542 Ignitability		Batch: 992160286054200A									
1121 Reactivity	see below	Batch: 992170416112100A									
I22 Sulfide (Reactivity)		Batch: 992170416112100A									
39.	mg/kg	N.D.	0 (1)	24	29	21	85			80	120

.) The result for one or both determinations was less than five times the LOQ.


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LLI Sample No. 3202268

SPO1TP01 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

## SURROGATE SUMMARY

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
			LOW	HIGH
1225 TCL Pesticides in Solids	TCX	109	30	163
	DCB	158	42	184
4688 TCL SW846 Semivolatiles Soil	Phenol-d6	83	47	127
	2-Fphenol	78	47	126
	2,4,6-TBP	82	36	150
4689 TCL SW846 Semivolatiles/Soil	Nitrobz-d5	74	45	128
	2-Fbiphenyl	76	49	123
	Tphenyld14	100	40	146
6292 TCL by 8260 (soil)	DBFM	111	80	120
	d4-1,2-DCA	104	80	120
	d8-toluene	103	81	117
	4-BFB	100	74	121



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Page: 1 of 3

AUG 27 1999

LLI Sample No. TL 3202269

Collected: 07/27/99 at 13:10 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99SP01TP01 Grab Soil Sample (TCLP Non-Volatile Ext.)  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933P.O. N99C403749-A  
Ref. YGQP99002418-27-99  
MCB 8/26/99  
Arc View

CAT NO.	ANALYSIS NAME	AS RECEIVED		
		RESULTS	METHOD	DETECTION LIMIT UNITS
1746	Barium	0.52	0.0015	mg/l
1751	Chromium	N.D.	0.0054	mg/l
1753	Copper	N.D.	0.0058	mg/l
1755	Lead	N.D.	0.023	mg/l
1766	Silver	N.D.	0.0057	mg/l
7035	Arsenic TR	N.D.	0.0070	mg/l
7036	Selenium TR	0.0074 J	0.0059	mg/l
7049	Cadmium TR	0.0020	0.00063	mg/l
7072	Zinc TR	0.050	0.0036	mg/l
0259	Mercury	N.D.	0.000042	mg/l

The metal analyses were performed on a non-volatile leachate prepared according to the procedure specified in SW-846, Chapter 7.4 (Revision 3, December, 1994). A sample is considered to have failed the Toxicity Characteristic (TC) test and is considered a hazardous waste if any of the metal concentrations (mg/l) in the leachate exceed the following maxima (100 times the Primary Drinking Water Standards):

Arsenic	5.0	Cadmium	1.0	Lead	5.0	Selenium	1.0
Barium	100.0	Chromium	5.0	Mercury	0.2	Silver	5.0

1 COPY TO Leggette, Brashears &amp; Graham ATTN: Mr. Ken Vogel

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300  
21:18:11 D 0001 25 138873 676387  
885 0.00 00013600 ASR000

Respectfully Submitted  
Duane A. Luckenbill, B.S.  
Group Leader, GC/MS Volatiles



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2216 Rev 3.2 7



LLI Sample No. TL 3202269

Collected: 07/27/99 at 13:10 by MP

Submitted: 07/29/99

SP01TP01 Grab Soil Sample (TCLP Non-Volatile Ext.)  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH  
 SDG#:

Account No: 10160  
 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ID	DATE AND TIME	ANALYST
1746	Barium	SW-846 6010B	1		08/10/99 2300	Donna R. Sackett
1751	Chromium	SW-846 6010B	1		08/10/99 2300	Donna R. Sackett
1753	Copper	SW-846 6010B	1		08/10/99 2300	Donna R. Sackett
1755	Lead	SW-846 6010B	1		08/10/99 2300	Donna R. Sackett
1766	Silver	SW-846 6010B	1		08/10/99 2300	Donna R. Sackett
5705	MW/TL SW 846 ICP Digest (tot)	SW-846 3010A	1		08/03/99 2139	Marie D. Kimmel
7035	Arsenic TR	SW-846 6010B	1		08/10/99 2300	Donna R. Sackett
7035	Selenium TR	SW-846 6010B	1		08/16/99 0448	Donna R. Sackett
7049	Cadmium TR	SW-846 6010B	1		08/10/99 2300	Donna R. Sackett
7072	Zinc TR	SW-846 6010B	1		08/10/99 2300	Donna R. Sackett
0259	Mercury	SW-846 7470A	1		08/04/99 1651	Nelli S. Markaryan
5713	MW SW846 Hg Digest	SW-846 7470A	1		08/03/99 2115	Nelli S. Markaryan
0947	TCLP Non-volatile Extraction	SW-846 1311	1		08/02/99 1500	James D. Cowan



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22-177-111



## LLI Sample No. 3202269

SP01TP01 Grab Soil Sample (TCLP Non-Volatile Ext.)  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
1746 Barium 0 0015	mg/l	Batch: 992155705003 N.D.	0 (1)	84	85	1	100			80	120
'51 Chromium 0.0054	mg/l	Batch: 992155705003 N.D.	0 (1)	83	84	2	102			80	120
1753 Copper 0 0058	mg/l	Batch: 992155705003 N.D.	3	85	85	0	99			80	120
'55 Lead 0.023	mg/l	Batch: 992155705003 N.D.	0 (1)	82	83	1	100			80	120
1766 Silver 0.0057	mg/l	Batch: 992155705003 N.D.	0 (1)	77	78	1	98			80	120
135 Arsenic TR 0.0070	mg/l	Batch: 992155705003 N.D.	2	81	81	0	97			80	120
7036 Selenium TR 0.0059	mg/l	Batch: 992155705003 N.D.	0 (1)	84	82	2	100			80	120
149 Cadmium TR 0.00063	mg/l	Batch: 992155705003 N.D.	0 (1)	84	85	1	100			80	120
172 Zinc TR 0.0036	mg/l	Batch: 992155705003 N.D.	0 (1)	85	86	1	99			80	120
1259 Mercury 0.000042	mg/l	Batch: 992155713003 N.D.	0 (1)	80	76	6	102			80	120

) The result for one or both determinations was less than five times the LOQ.



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2216 Rev. 3.23

AUG 27 1999  
 Page: 1 of 13

**LLI Sample No. SW 3202270**

Collected: 07/27/99 at 14:00 by MP

 Submitted: 07/29/99 Reported: 08/16/99  
 Discard: 10/16/99

 SP01TP02 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Account No: 10160

 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

 P.O. N99C403749-A  
 Rel. YGQP9900241

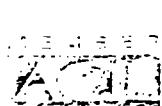
*+ Are View  
MC 8/26/99  
8-27-99*

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT	RESULTS	METHOD	DETECTION LIMIT
6292	TCL by 8260 (soil)				See Page	2	
1225	TCL Pesticides in Solids				See Page	3	
4688	TCL SW846 Semivolatiles Soil				See Page	4	
4689	TCL SW846 Semivolatiles/Soil				See Page	5	
1123	Cyanide (Reactivity)	N.D.	100.	mg/kg			
0111	Moisture	14.7	0.50	% by wt.			
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.						
0394	pH	8.07	0.010				
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.						
0496	Corrosivity	See Below			See Below		
	Corrosivity:						
	The pH of a 1:1 slurry (with deionized water) was 8.07 indicating that the waste is not corrosive.						
	A waste is corrosive if it exhibits a pH equal to or less than 2 or equal to or greater than 12.5.						
0542	Ignitability	See Below			See Below		
	The sample did not spontaneously ignite when exposed to air or water.						
	The sample did not ignite by friction.						
	The sample vapors did not ignite when exposed to a flame using a closed cup apparatus.						
1121	Reactivity	See Below			See Below		
	Reactivity:						
	The sample was extracted by the interim method described in SW 846, Chapter 7.3. This solution was analyzed for cyanide and sulfide.						
	This waste is not considered reactive and hazardous because it does not generate a quantity of hydrogen cyanide exceeding 250 mg/kg or hydrogen sulfide exceeding 500 mg/kg. These interim threshold limits were established by the Solid Waste Branch of EPA, July, 1992. These results do not reflect total cyanide or total sulfide.						
1122	Sulfide (Reactivity)	N.D.	39.	mg/kg			
	The relative percent difference (RPD) between the MS and MSD on the batch associated with this sample was 21%. The acceptable RPD for this analysis is 20%. The MS and MSD were both within specifications.						

COPY TO Leggette, Brashears &amp; Graham ATTN: Mr. Ken Vogel

Questions? Contact your Client Services Representative  
 Kathy Klinefelter at (717) 656-2300  
 21:18:36 D 0001 25 138873 676387  
 885 0.00 00072200 ASR000

Respectfully Submitted  
 Duane A. Luckenbill, B.S.  
 Group Leader, GC/MS Volatiles



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LLI Sample No. SW 3202270

Collected: 07/27/99 at 14:00 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

SP01TP02 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

P.O. N99C403749-A  
Ref. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT	
		RESULTS	METHOD	DETECTION LIMIT UNITS	RESULTS	METHOD
TCL by 8260 (soil)						
5444	Chloromethane	N.D.	2.	ug/kg	N.D.	2.
5446	Bromomethane	N.D.	3.	ug/kg	N.D.	4.
5445	Vinyl Chloride	N.D.	2.	ug/kg	N.D.	2.
5447	Chloroethane	N.D.	3.	ug/kg	N.D.	4.
5450	Methylene Chloride	3.	J	2.	3.	J
6293	Acetone	N.D.	7.	ug/kg	N.D.	8.
6294	Carbon Disulfide	N.D.	3.	ug/kg	N.D.	4.
5449	1,1-Dichloroethene	N.D.	2.	ug/kg	N.D.	2.
5452	1,1-Dichloroethane	2.	J	1.	2.	J
5455	Chloroform	N.D.	1.	ug/kg	N.D.	1.
5461	1,2-Dichloroethane	N.D.	2.	ug/kg	N.D.	2.
6295	2-Butanone	N.D.	7.	ug/kg	N.D.	8.
5457	1,1,1-Trichloroethane	1.	J	1.	2.	J
5458	Carbon Tetrachloride	N.D.	1.	ug/kg	N.D.	1.
5465	Bromodichloromethane	N.D.	2.	ug/kg	N.D.	2.
5480	1,1,2,2-Tetrachloroethane	N.D.	1.	ug/kg	N.D.	1.
5463	1,2-Dichloropropane	N.D.	3.	ug/kg	N.D.	4.
6297	trans-1,3-Dichloropropene	N.D.	1.	ug/kg	N.D.	1.
5462	Trichloroethene	5.	J	1.	5.	J
5470	Dibromochloromethane	N.D.	1.	ug/kg	N.D.	1.
5467	1,1,2-Trichloroethane	N.D.	2.	ug/kg	N.D.	2.
5460	Benzene	N.D.	1.	ug/kg	N.D.	1.
6298	cis-1,3-Dichloropropene	N.D.	1.	ug/kg	N.D.	1.
5478	Bromoform	N.D.	1.	ug/kg	N.D.	1.
6299	4-Methyl-2-pentanone	N.D.	3.	ug/kg	N.D.	4.
6300	2-Hexanone	N.D.	3.	ug/kg	N.D.	4.
5468	Tetrachloroethene	1.	J	1.	2.	J
5466	Toluene	N.D.	1.	ug/kg	N.D.	1.
5472	Chlorobenzene	N.D.	1.	ug/kg	N.D.	1.
5474	Ethylbenzene	N.D.	1.	ug/kg	N.D.	1.
5477	Styrene	N.D.	1.	ug/kg	N.D.	1.
6301	Xyloene (Total)	N.D.	1.	ug/kg	N.D.	1.
5451	trans-1,2-Dichloroethene	N.D.	2.	ug/kg	N.D.	2.
5454	cis-1,2-Dichloroethene	N.D.	2.	ug/kg	N.D.	2.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted  
Duane A. Luckenbill, B.S.  
Group Leader, GC/MS Volatiles

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LLI Sample No. SW 3202270

Collected: 07/27/99 at 14:00 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

SP01TP02 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

P.O. N99C403749-A  
Ref. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT	RESULTS	METHOD	DETECTION LIMIT
<b>TCL Pesticides in Solids</b>							
1981	Alpha BHC	N.D.	0.67	ug/kg	N.D.	0.79	
1982	Beta BHC	N.D.	0.67	ug/kg	N.D.	0.79	
1983	Delta BHC	N.D.	0.67	ug/kg	N.D.	0.79	
1218	Gamma BHC - Lindane	N.D.	0.67	ug/kg	N.D.	0.79	
1219	Heptachlor	N.D.	0.67	ug/kg	N.D.	0.79	
1220	Aldrin	N.D.	0.67	ug/kg	N.D.	0.79	
1984	Heptachlor Epoxide	N.D.	0.67	ug/kg	N.D.	0.79	
1989	Endosulfan I	N.D.	0.67	ug/kg	N.D.	0.79	
1222	Dieldrin	N.D.	1.3	ug/kg	N.D.	1.5	
1985	DDE	N.D.	1.3	ug/kg	N.D.	1.5	
1223	Endrin	N.D.	1.3	ug/kg	N.D.	1.5	
1990	Endosulfan II	N.D.	1.3	ug/kg	N.D.	1.5	
1986	DDD	N.D.	1.3	ug/kg	N.D.	1.5	
1991	Endosulfan Sulfate	N.D.	1.3	ug/kg	N.D.	1.5	
1221	DDT	N.D.	1.3	ug/kg	N.D.	1.5	
3017	Endrin Ketone	N.D.	1.3	ug/kg	N.D.	1.5	
1859	Methoxychlor	N.D.	6.7	ug/kg	N.D.	7.9	
3025	Alpha Chlordane	N.D.	0.67	ug/kg	N.D.	0.79	
3026	Gamma Chlordane	N.D.	0.67	ug/kg	N.D.	0.79	
1988	Toxaphene	N.D.	67.	ug/kg	N.D.	79.	
1992	Endrin Aldehyde	N.D.	1.3	ug/kg	N.D.	1.5	
1993	PCB-1016	N.D.	33.	ug/kg	N.D.	39.	
1994	PCB-1221	N.D.	33.	ug/kg	N.D.	39.	
1995	PCB-1232	N.D.	33.	ug/kg	N.D.	39.	
1996	PCB-1242	N.D.	33.	ug/kg	N.D.	39.	
1997	PCB-1248	N.D.	33.	ug/kg	N.D.	39.	
1998	PCB-1254	N.D.	33.	ug/kg	N.D.	39.	
1999	PCB-1250	N.D.	33.	ug/kg	N.D.	39.	

This analysis was performed at a 10x dilution of the original sample.

Due to the nature of the sample matrix, a dilution of the sample was used for analysis. The Limits of Quantitation (LOQ's) were raised accordingly.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs

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LLI Sample No. SW 3202270

Collected: 07/27/99 at 14:00 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/15/99SPO1TP02 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933P.O. N99C403749-A  
Ref. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT	
		RESULTS	METHOD	DETECTION LIMIT	RESULTS	METHOD
TCL SW846 Semivolatile Soil						
1185	Phenol	N.D.	67.	ug/kg	N.D.	79.
3753	bis(2-Chloroethyl)ether	N.D.	33.	ug/kg	N.D.	39.
1186	2-Chlorophenol	N.D.	33.	ug/kg	N.D.	39.
3754	1,3-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.
1187	1,4-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.
3755	1,2-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.
4690	2-Methylphenol	N.D.	33.	ug/kg	N.D.	39.
4691	2,2'-oxybis[1-Chloropropane)	N.D.	33.	ug/kg	N.D.	39.
4692	4-Methylphenol	N.D.	67.	ug/kg	N.D.	79.
1188	N-Nitroso-di-n-propylamine	N.D.	33.	ug/kg	N.D.	39.
3757	Hexachloroethane	N.D.	33.	ug/kg	N.D.	39.
3758	Nitrobenzene	N.D.	33.	ug/kg	N.D.	39.
3759	Isophorone	N.D.	33.	ug/kg	N.D.	39.
3746	2-Nitrophenol	N.D.	67.	ug/kg	N.D.	79.
3747	2,4-Dimethylphenol	N.D.	67.	ug/kg	N.D.	79.
3760	bis(2-Chloroethoxy)methane	N.D.	67.	ug/kg	N.D.	79.
3748	2,4-Dichlorophenol	N.D.	67.	ug/kg	N.D.	79.
1189	1,2,4-Trichlorobenzene	N.D.	33.	ug/kg	N.D.	39.
3761	Naphthalene	N.D.	33.	ug/kg	N.D.	39.
4693	4-Chloroaniline	N.D.	33.	ug/kg	N.D.	39.
3762	Hexachlorobutadiene	N.D.	67.	ug/kg	N.D.	79.
1190	4-Chloro-3-methylphenol	N.D.	67.	ug/kg	N.D.	79.
4694	2-Methylnaphthalene	N.D.	33.	ug/kg	N.D.	39.
3763	Hexachlorocyclopentadiene	N.D.	170.	ug/kg	N.D.	200.
3749	2,4,6-Trichlorophenol	N.D.	67.	ug/kg	N.D.	79.
4695	2,4,5-Trichlorophenol	N.D.	67.	ug/kg	N.D.	79.
3764	2-Chloronaphthalene	N.D.	33.	ug/kg	N.D.	39.
4696	2-Nitroaniline	N.D.	33.	ug/kg	N.D.	39.
3766	Dimethylphthalate	N.D.	67.	ug/kg	N.D.	79.
3765	Acenaphthylene	N.D.	33.	ug/kg	N.D.	39.

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted  
Charles J. Neslund, B.S.  
Group Leader, GC/MS SVOA

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LLI Sample No. SW 3202270

Collected: 07/27/99 at 14:00 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

SPO1TP02 Grav Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

P.O. N99C403749-A  
Ref. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD DETECTION LIMIT	UNITS	RESULTS	METHOD DETECTION LIMIT	
<b>TCL SW846 Semivolatiles/Soil</b>							
4697	3-N-troaniline	N.D.	67.	ug/kg	N.D.	79.	
1191	Acenaphthene	N.D.	33.	ug/kg	N.D.	39.	
3750	2,4-Dinitrophenol	N.D.	230.	ug/kg	N.D.	270.	
1192	4-Nitrophenol	N.D.	170.	ug/kg	N.D.	200.	
4698	Dibenzofuran	N.D.	33.	ug/kg	N.D.	39.	
1193	2,4-Dinitrotoluene	N.D.	67.	ug/kg	N.D.	79.	
3767	2,6-Dinitrotoluene	N.D.	33.	ug/kg	N.D.	39.	
3770	Diethylphthalate	N.D.	67.	ug/kg	N.D.	79.	
3769	4-Chlorophenyl-phenylether	N.D.	33.	ug/kg	N.D.	39.	
3768	Fluorene	N.D.	33.	ug/kg	N.D.	39.	
4700	4-Nitroaniline	N.D.	67.	ug/kg	N.D.	79.	
3751	4,6-Dinitro-2-methylphenol	N.D.	170.	ug/kg	N.D.	200.	
3772	N-Nitrosodiphenylamine	N.D.	33.	ug/kg	N.D.	39.	
3773	4-Bromophenyl-phenylether	N.D.	67.	ug/kg	N.D.	79.	
3774	Hexachlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
1194	Pentachlorophenol	N.D.	170.	ug/kg	N.D.	200.	
3775	Phenanthrene	140.	J	33.	170.	J	39.
3776	Anthracene	N.D.	33.	ug/kg	N.D.	39.	
4702	Carsazole	N.D.	33.	ug/kg	N.D.	39.	
3777	Di-n-butylphthalate	N.D.	67.	ug/kg	N.D.	79.	
3778	Fluoranthene	240.	J	33.	280.	J	39.
1195	Pyrene	220.	J	33.	260.	J	39.
3780	Butylbenzylphthalate	N.D.	67.	ug/kg	N.D.	79.	
3783	3,3'-Dichlorobenzidine	N.D.	67.	ug/kg	N.D.	79.	
3781	Benzo(a)anthracene	130.	J	33.	150.	J	39.
3784	bis(2-Ethylhexyl)phthalate	N.D.	67.	ug/kg	N.D.	79.	
3782	Chrysene	120.	J	33.	140.	J	39.
3785	Di-n-octylphthalate	N.D.	67.	ug/kg	N.D.	79.	
3786	Benzo(b)fluoranthene	150.	J	33.	180.	J	39.
3787	Benzo(k)fluoranthene	65.	J	33.	77.	J	39.
3788	Benzo(a)pyrene	110.	J	33.	130.	J	39.
3789	Indeno(1,2,3-cd)pyrene	75.	J	33.	88.	J	39.
3790	Dibenz(a,h)anthracene	N.D.	33.	ug/kg	N.D.	39.	
3791	Benzo(g,h,i)perylene	67.	J	33.	79.	J	39.

N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine.  
The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300

Respectfully Submitted  
Charles J. Neslund, B.S.  
Group Leader, GC/MS SVA

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**Lancaster Laboratories**  
Where quality is a science.

Page: 6 of 13

LLI Sample No. SW 3202270

Collected: 07/27/99 at 14:00 by MP

Submitted: 07/29/99

SP01TP02 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH  
1TP02 SDG#:

Account No: 10160  
Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
6292	TCL by 8260 (soil)	SW-846 8260B	1		08/03/99 1535	Michael E. McAdams
0819	Solid Sample Pesticide Extract	SW-846 3550B	1		07/31/99 0720	Ginelle L. Haines
1225	TCL Pesticides in Solids	SW-846 8081A/8082	1		08/04/99 0515	Douglas D. Seitz
0381	BNA Soil Extraction	SW-846 3550B	1		08/03/99 2000	Karen L. Beyer
4688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1		08/05/99 0859	Michele A. Jarosick
4689	TCL SW846 Semivolatiles/Soil	SW-846 8270C	1		08/05/99 0859	Michele A. Jarosick
1123	Cyanide (Reactivity)	SW-846 9012	1		08/05/99 2155	Venia M. McFadden
0111	Moisture	EPA 160.3 modified	1		08/01/99 1929	Gabriel Agosto
0394	pH	SW-846 9045C (modified)	1		08/03/99 2200	Luz M. Groff
0542	Ignitability	40 CFR 261.21	1		08/04/99 1130	Catherine L. Cammauf
1121	Reactivity	SW-846 Chapter 7.3	1		08/05/99 0805	Susan E. Hibner
1122	Sulfide (Reactivity)	SW-846 9034	1		08/05/99 0805	Susan E. Hibner

ME 143 89

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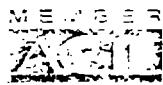
1215 Rev. 12/1



LLI Sample No. 3202270

SPO1TP02 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP990241  
Dayton Thermal Products/Dayton, OHGroup No. 676387  
Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
<b>292 TCL by 8260 (soil)</b>											
		Batch: E992121AD									
5444 Chloromethane		N.D.		105	108	2	104			48	130
2. ug/kg											
5446 Bromomethane		N.D.		99	108	9	99			46	134
3. ug/kg											
5445 Vinyl Chloride		N.D.		108	113	5	100			60	127
2. ug/kg											
5447 Chloroethane		N.D.		99	104	5	96			30	142
3. ug/kg											
5450 Methylene Chloride		N.D.		9	1	6	104			69	126
2. ug/kg											
6293 Acetone		N.D.		104	99	6	78			46	133
7. ug/kg											
6294 Carbon Disulfide		N.D.		96	97	1	88			52	165
3. ug/kg											
5449 1,1-Dichloroethene		N.D.		112	112	0	103			69	146
2. ug/kg											
5452 1,1-Dichloroethane		N.D.		113	117	3	114			81	130
1. ug/kg											
5455 Chloroform		N.D.		107	114	7	113			82	123
1. ug/kg											
5461 1,2-Dichloroethane		N.D.		103	109	6	115			81	123
2. ug/kg											
6296 2-Butanone		N.D.		114	117	2	110			47	153
7. ug/kg											
5457 1,1,1-Trichloroethane		N.D.		110	115	4	120			84	132
1. ug/kg											
5458 Carbon Tetrachloride		N.D.		109	116	6	121			78	129
1. ug/kg											
5465 Bromodichloromethane		N.D.		106	112	6	114			80	121
2. ug/kg											
5480 1,1,2,2-Tetrachloroethane		N.D.		108	108	0	101			70	124
1. ug/kg											
5463 1,2-Dichloropropane		N.D.		113	117	4	114			77	127
3. ug/kg											
6297 trans-1,3-Dichloropropene		N.D.		103	108	4	105			69	131
1. ug/kg											
5462 Trichloroethene		N.D.		111	116	5	112			81	123
1. ug/kg											
5470 Dibromochloromethane		N.D.		106	109	3	112			80	120
1. ug/kg											
5467 1,1,2-Trichloroethane		N.D.		111	110	1	108			81	124
2. ug/kg											
5460 Benzene		N.D.		116	119	2	113			77	126
1. ug/kg											
6298 cis-1,3-Dichloropropene		N.D.		110	115	4	112			79	126
1. ug/kg											



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## LLI Sample No. 3202270

SP01TP02 Grab Soil Sample  
 Site Code: SCC01 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
5478	Bromoform										
1.	ug/kg	N.D.		102	101	1	107			73	120
6299	4-Methyl-2-pentanone										
3.	ug/kg	N.D.		102	108	6	110			63	123
6300	2-Hexanone										
3.	ug/kg	N.D.		105	107	1	104			60	128
5468	Tetrachloroethene										
1.	ug/kg	N.D.		115	120	4	114			83	150
5466	Toluene										
1.	ug/kg	N.D.		114	113	1	105			74	128
5472	Chlorobenzene										
1.	ug/kg	N.D.		114	112	2	108			81	121
5474	Ethylbenzene										
1.	ug/kg	N.D.		117	116	0	112			86	129
5477	Styrene										
1.	ug/kg	N.D.		116	114	2	108			84	127
6301	Xylene (Total)										
1.	ug/kg	N.D.		117	116	1	111			88	128
5451	trans-1,2-Dichloroethene										
2.	ug/kg	N.D.		115	119	4	111			73	126
5454	cis-1,2-Dichloroethene										
2.	ug/kg	N.D.		113	117	3	112			84	123

## 225 TCL Pesticides in Solids

Batch: 992110011A

1981	Alpha BHC										
	0.67 ug/kg	N.D.		84	85	1	102			38	156
1982	Beta BHC										
	0.67 ug/kg	N.D.		94	93	1	97			40	153
1983	Delta BHC										
	0.67 ug/kg	N.D.		76	76	0	97			44	145
1218	Gamma BHC - Lindane										
	0.67 ug/kg	N.D.		84	83	1	102			51	142
1219	Heptachlor										
	0.67 ug/kg	N.D.		85	81	5	100			59	140
1220	Aldrin										
	0.67 ug/kg	N.D.		105	100	4	100			55	132
1984	Heptachlor Epoxide										
	0.67 ug/kg	N.D.		93	91	2	99			58	129
1989	Endosulfan I										
	0.67 ug/kg	N.D.		185	185	0	81			56	123
1222	Dieldrin										
	1.3 ug/kg	N.D.		86	85	1	90			63	133
1985	ODE										
	1.3 ug/kg	N.D.		102	101	1	101			47	159
1223	Endrin										
	1.3 ug/kg	N.D.		105	104	0	112			70	150
1990	Endosulfan II										
	1.3 ug/kg	N.D.		44	51	16	89			46	138

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LLI Sample No. 3202270

SP01TP02 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OHGroup No. 676387  
Chrysler Corporation

SAMPLE MDL.	SAMPLE UNITS	BLANK	DUP RPO	MS	MSD	MS RPO	LCS	LCS DUP	LCS RPO	LCS LOW	LIMITS HIGH
1986	DDD										
	1.3 ug/kg	N.D.		108	107	1	101			53	141
1991	Erdosulfan Sulfate										
	1.3 ug/kg	N.D.		88	84	5	108			40	150
1221	DET										
	1.3 ug/kg	N.D.		107	107	0	110			60	138
3017	Erdrin Ketone										
	1.3 ug/kg	N.D.		90	90	0	92			62	137
1859	Methoxychlor										
	6.7 ug/kg	N.D.		132	124	6	128			52	174
3025	Alpha Chlordane										
	0.67 ug/kg	N.D.		151	149	1	100			68	141
3026	Gamma Chlordane										
	0.67 ug/kg	N.D.		100	97	2	97			65	129
1988	Tcxaphene										
	67. ug/kg	N.D.									
1992	Erdrin Aldehyde										
	1.3 ug/kg	N.D.		82	82	1	83			75	125
1993	PCB-1015										
	33. ug/kg	N.D.									
1994	PCB-1221										
	33. ug/kg	N.D.									
1995	PCB-1232										
	33. ug/kg	N.D.									
1996	PCB-1242										
	33. ug/kg	N.D.									
1997	PCB-1248										
	33. ug/kg	N.D.									
1998	PCB-1254										
	33. ug/kg	N.D.									
1999	PCB-1260										
	33. ug/kg	N.D.									

88 TCL SW846 Semivolatiles Soil Batch: 99215SLD026

1185	Phenol										
	67. ug/kg	N.D.		63	49	24	87			40	128
3753	bis(2-Chloroethyl)ether										
	33. ug/kg	N.D.		58	42	32	91			38	131
1186	2-Chlorophenol										
	33. ug/kg	N.D.		62	47	28	90			44	127
3754	1,3-Dichlorobenzene										
	33. ug/kg	N.D.		44	28	44	87			31	121
1187	1,4-Dichlorobenzene										
	33. ug/kg	N.D.		44	29	43	86			36	119
3755	1,2-Dichlorobenzene										
	33. ug/kg	N.D.		48	31	42	88			39	120
4690	2-Methylphenol										
	33. ug/kg	N.D.		61	48	25	89			42	127

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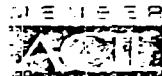


LLI Sample No. 3202270

SPC1TP02 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OHGroup No. 676387  
Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
4691	2,2'-oxybis(1-Chloropropane)										
33.	ug/kg	N.D.		54	38	34	88			38	151
4692	4-Methylphenol										
67.	ug/kg	N.D.		62	49	23	89			33	139
1188	N-Vitroso-di-n-propylamine										
33.	ug/kg	N.D.		64	49	26	92			39	142
3757	Hexachloroethane										
33.	ug/kg	N.D.		44	28	44	89			29	128
3758	Nitrobenzene										
33.	ug/kg	N.D.		59	44	29	91			42	131
3759	Isophorone										
33.	ug/kg	N.D.		61	47	25	89			46	130
3746	2-Nitrophenol										
67.	ug/kg	N.D.		65	50	28	97			36	141
3747	2,4-Dimethylphenol										
67.	ug/kg	N.D.		60	48	22	90			40	132
3760	bis(2-Chloroethoxy)methane										
67.	ug/kg	N.D.		63	49	26	93			44	127
3748	2,4-Dichlorophenol										
67.	ug/kg	N.D.		64	50	23	91			41	128
1189	1,2,4-Trichlorobenzene										
33.	ug/kg	N.D.		54	39	32	92			44	121
3761	Naphthalene										
33.	ug/kg	N.D.		55	41	31	89			34	133
4693	4-Chloroaniline										
33.	ug/kg	N.D.		50	41	18	42			1	113
3762	Hexachlorobutadiene										
67.	ug/kg	N.D.		52	36	36	92			39	133
1190	4-Chloro-3-methylphenol										
67.	ug/kg	N.D.		65	52	22	93			47	135
4694	2-Methylnaphthalene										
33.	ug/kg	N.D.		59	45	27	90			43	131
3763	Hexachlorocyclopentadiene										
170.	ug/kg	N.D.		35	24	38	69			1	141
3749	2,4,6-Trichlorophenol										
67.	ug/kg	N.D.		64	52	22	90			39	141
4695	2,4,5-Trichlorophenol										
67.	ug/kg	N.D.		64	52	21	87			45	136
3764	2-Chloronaphthalene										
33.	ug/kg	N.D.		64	51	23	92			48	127
4696	2-Nitroaniline										
33.	ug/kg	N.D.		71	58	21	101			25	139
3766	Dimethylphthalate										
67.	ug/kg	N.D.		67	55	21	95			53	127
3765	Acenaphthylene										
33.	ug/kg	N.D.		62	50	21	89			44	126

J89 TCL SW846 Semivolatiles/Soil Batch: 99215SLD026



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LLI Sample No. 3202270

 SP01TP02 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

 Group No. 676387  
 Chrysler Corporation

SAMPLE MOL.	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
4697	3-Nitroaniline										
67.	ug/kg	N.D.		61	52	17	66			18	117
1191	Acenaphthene										
33.	ug/kg	N.D.		63	51	21	91			47	127
3750	2,4-Dinitrophenol										
230.	ug/kg	N.D.		35	26	29	55			1	133
1192	4-Nitrophenol										
170.	ug/kg	N.D.		60	46	27	83			31	161
4698	Dibenzofuran										
33.	ug/kg	N.D.		66	54	21	93			53	125
1193	2,4-Dinitrotoluene										
67.	ug/kg	N.D.		67	54	21	95			50	131
3767	2,6-Dinitrotoluene										
33.	ug/kg	N.D.		71	58	21	103			53	130
3770	Diethylphthalate										
67.	ug/kg	N.D.		68	56	20	97			54	130
3769	4-Chlorophenyl-phenylether										
33.	ug/kg	N.D.		67	54	21	92			47	132
3768	Fluorene										
33.	ug/kg	N.D.		65	53	20	92			42	142
4700	4-Nitroariline										
67.	ug/kg	N.D.		64	52	20	86			30	127
3751	4,5-Dinitro-2-methylphenol										
170.	ug/kg	N.D.		52	37	33	76			14	143
3772	N,N-trosodiphenylamine										
33.	ug/kg	N.D.		70	57	21	97			49	130
3773	4-Bromophenyl-phenylether										
67.	ug/kg	N.D.		70	57	22	96			53	132
3774	Hexachlorobenzene										
33.	ug/kg	N.D.		70	56	22	95			40	144
1194	Pentachlorophenol										
170.	ug/kg	N.D.		34	22	41	61			20	132
3775	Phenanthrene										
33.	ug/kg	N.D.		69	45	30	94			42	141
3776	Anthracene										
33.	ug/kg	N.D.		69	52	25	95			45	132
4702	Carbazole										
33.	ug/kg	N.D.		70	55	23	94			48	129
3777	Di- <i>t</i> -butylphthalate										
67.	ug/kg	N.D.		71	56	23	97			54	133
3778	Fluoranthene										
33.	ug/kg	N.D.		64	36	33	92			37	142
1195	Pyrene										
33.	ug/kg	N.D.		67	43	28	103			34	145
3780	Butylbenzylphthalate										
67.	ug/kg	N.D.		72	59	21	104			47	138
3783	3,3'-Dichlorobenzidine										
67.	ug/kg	N.D.		58	50	15	69			2	132
3781	Benzo(a)anthracene										
33.	ug/kg	N.D.		69	47	29	94			44	133


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2215 Rev 11/11



LLI Sample No. 3202270

SP01TP02 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OHGroup No. 676387  
Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
3784 bis(2-Ethylhexyl)phthalate 67. ug/kg		N.D.		77	62	21	109			41	145
3782 Chrysene 33. ug/kg		N.D.		69	47	29	96			42	136
3785 Di-n-octylphthalate 67. ug/kg		N.D.		83	67	21	117			43	156
3786 Benzo(b)fluoranthene 33. ug/kg		N.D.		63	45	24	94			35	140
3787 Benzo(a)fluoranthene 33. ug/kg		N.D.		71	54	25	99			38	145
3788 Benzo(a)pyrene 33. ug/kg		N.D.		67	50	23	98			38	141
3789 Indeno(1,2,3-cd)pyrene 33. ug/kg		N.D.		66	53	20	98			30	153
3790 Dibenz(a,h)anthracene 33. ug/kg		N.D.		70	56	21	97			32	151
3791 Benzo(g,h,i)perylene 33. ug/kg		N.D.		68	53	22	97			29	151
1123 Cyanide (Reactivity) 100. mg/kg		Batch: 99217104201 N.D.	0 (1)	3	2	37	105			88	121
1111 Moisture 0.50 % by wt.		Batch: 992130091820002A									
0394 pH 0.010		Batch: 992150239039400A		1			100	100	0	99	101
1542 Ignitability		Batch: 992160286054200A		0			99	100	1	98	102
1121 Reactivity see below		Batch: 992170416112100A									
1122 Sulfide (Reactivity) 39. mg/kg		Batch: 992170416112100A N.D.	0 (1)	24	29	21	85			80	120

1) The result for one or both determinations was less than five times the LOQ.



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LLI Sample No. 3202270

SP01TP02 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

## SURROGATE SUMMARY

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
			LOW	HIGH
1225 TCL Pesticides in Solids	TCX	106	30	163
	DCB	203	42	184
4688 TCL SW846 Semivolatiles Soil	Phenol-d6	57	47	127
	2-Flpheno1	54	47	126
	2,4,6-TBP	54	36	150
4689 TCL SW846 Semivolatiles/Soil	Nitrobz-d5	50	45	128
	2-Fbiphenyl	53	49	123
	Tphenyld14	69	40	146
6292 TCL dy 8260 (soil)	DBFM	106	80	120
	d4-1,2-DCA	104	80	120
	d8-toluene	103	81	117
	4-BFB	102	74	121



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Page: 1 of 3

AUG 22 1999

LLI Sample No. TL 3202271  
Collected 07/27/99 at 14:00 by MP

Submitted: 07/29/99 Reported: 08/16/99

Discard: 10/16/99

SPO1TP02 Grab Soil Sample (TCLP Non-Volatile Ext.)  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933P.O. N99C403749-A  
Ref. YGQP9900241

+ Arc View

~~MCB~~ MCP3/2  
HHS  
8-27-99

## AS RECEIVED

CAT NO. ANALYSIS NAME      RESULTS      METHOD  
DETECTION LIMIT UNITS

1746	Barium	0.48	0.0015	mg/l
1751	Chromium	0.0107 J	0.0054	mg/l
1753	Copper	0.0089 J	0.0058	mg/l
1755	Lead	N.D.	0.023	mg/l
1766	Silver	N.D.	0.0057	mg/l
7035	Arsenic TR	N.D.	0.0070	mg/l
7036	Selenium TR	N.D.	0.0059	mg/l
7049	Cadmium TR	0.0018	0.00063	mg/l
7072	Zinc TR	0.030	0.0036	mg/l
0259	Mercury	N.D.	0.000042	mg/l

The metal analyses were performed on a non-volatile leachate prepared according to the procedure specified in SW-846, Chapter 7.4 (Revision 3, December, 1994). A sample is considered to have failed the Toxicity Characteristic (TC) test and is considered a hazardous waste if any of the metal concentrations (mg/l) in the leachate exceed the following maxima (100 times the Primary Drinking Water Standards):

Arsenic	5.0	Cadmium	1.0	Lead	5.0	Selenium	1.0
Barium	100.0	Chromium	5.0	Mercury	0.2	Silver	5.0

1 COPY TO Leggette, Brashears &amp; Graham      ATTN: Mr. Ken Vogel

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300  
21:20:55 D 0001 25 138873 676387  
885 0.00 00013600 ASR000

Respectfully Submitted  
Duane A. Luckenbill, B.S.  
Group Leader, GC/MS Volatiles



Lancaster Laboratories  
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Lancaster, PA 17605-2425

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2216 Rev. 3.25 7-



Page: 2 of 3

LLI Sample No. TL 3202271

Collected: 07/27/99 at 14:00 by MP

Submitted: 07/29/99

SP01TP02 Grab Soil Sample (TCLP Non-Volatile Ext.)  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH  
 SDG#:

Account No: 10160  
 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ID	ANALYSIS DATE AND TIME	ANALYST
1746	Barium	SW-846 6010B	1		08/10/99 2305	Donna R. Sackett
1751	Chromium	SW-846 6010B	1		08/10/99 2305	Donna R. Sackett
1753	Copper	SW-846 6010B	1		08/16/99 0528	Donna R. Sackett
1755	Lead	SW-846 6010B	1		08/10/99 2305	Donna R. Sackett
1766	Silver	SW-846 6010B	1		08/10/99 2305	Donna R. Sackett
5705	WW/TL SW 846 ICP Digest (tot)	SW-846 3010A	1		08/03/99 2139	Marie D. Kimmel
7035	Arsenic TR	SW-846 6010B	1		08/10/99 2305	Donna R. Sackett
7036	Selenium TR	SW-846 6010B	1		08/16/99 0528	Donna R. Sackett
7049	Cadmium TR	SW-846 6010B	1		08/10/99 2305	Donna R. Sackett
7072	Zinc TR	SW-846 6010B	1		08/10/99 2305	Donna R. Sackett
0259	Mercury	SW-846 7470A	1		08/04/99 1653	Nelli S. Markaryan
5713	WW SW846 Hg Digest	SW-846 7470A	1		08/03/99 2115	Nelli S. Markaryan
0947	TCLP Non-volatile Extraction	SW-846 1311	1		08/02/99 1500	James D. Cowan



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1216 Rev 1/03



LLI Sample No. 3202271

SP01TP02 Grab Soil Sample (TCLP Non-Volatile Ext.)  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
1746 Barium		Batch: 992155705003									
0.0015	mg/l	N.D.	0 (1)	84	85	1	100			80	120
.751 Chromium		Batch: 992155705003									
0.0054	mg/l	N.D.	0 (1)	83	84	2	102			80	120
1753 Copper		Batch: 992155705003									
0.0058	mg/l	N.D.	3	85	85	0	99			80	120
.755 Lead		Batch: 992155705003									
0.023	mg/l	N.D.	0 (1)	82	83	1	100			80	120
1766 Silver		Batch: 992155705003									
0.0057	mg/l	N.D.	0 (1)	77	78	1	98			80	120
'035 Arsenic TR		Batch: 992155705003									
0.0070	mg/l	N.D.	2	81	81	0	97			80	120
7036 Selenium TR		Batch: 992155705003									
0.0059	mg/l	N.D.	0 (1)	84	82	2	100			80	120
'049 Cadmium TR		Batch: 992155705003									
0.0063	mg/l	N.D.	0 (1)	84	85	1	100			80	120
/072 Zinc TR		Batch: 992155705003									
0.0036	mg/l	N.D.	0 (1)	85	86	1	99			80	120
^259 Mercury		Batch: 992155713003									
0.00042	mg/l	N.D.	0 (1)	80	76	6	102			80	120

1) The result for one or both determinations was less than five times the LOQ.



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AUG 2 2 1999

**LLI Sample No. SW 3202272**

Collected: 07/27/99 at 14:30 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

SP01TP03 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

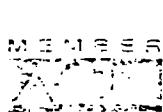
P.O. N99C403749-A  
Ref. YGQP9900241

→ Arc View  
ENTERED IN DATA BASE  
SUBDATE MCP 3/26/99  
CHECKED BY LHM  
DATE 8-27-99

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT	UNITS	RESULTS	METHOD
6292	TCL by 8260 (soil)					See Page	2
1225	TCL Pesticides in Solids					See Page	3
4688	TCL SW846 Semivolatiles Soil					See Page	4
4689	TCL SW846 Semivolatiles/Soil					See Page	5
1123	Cyanide (Reactivity)	N.D.		100.	mg/kg		
0111	Moisture	14.4		0.50	% by wt.		
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.						
0394	pH	7.59		0.010			
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.						
0496	Corrosivity	See Below		1.0	See Below		
	Corrosivity:						
	The pH of a 1:1 slurry (with deionized water) was 7.59 indicating that the waste is not corrosive.						
	A waste is corrosive if it exhibits a pH equal to or less than 2 or equal to or greater than 12.5.						
0542	Ignitability	See Below			See Below		
	The sample did not spontaneously ignite when exposed to air or water.						
	The sample did not ignite by friction.						
	The sample vapors did not ignite when exposed to a flame using a closed cup apparatus.						
1121	Reactivity	See Below			See Below		
	Reactivity:						
	The sample was extracted by the interim method described in SW 846, Chapter 7.3. This solution was analyzed for cyanide and sulfide.						
	This waste is not considered reactive and hazardous because it does not generate a quantity of hydrogen cyanide exceeding 250 mg/kg or hydrogen sulfide exceeding 500 mg/kg. These interim threshold limits were established by the Solid Waste Branch of EPA, July, 1992. These results do not reflect total cyanide or total sulfide.						
1122	Sulfide (Reactivity)	N.D.		39.	mg/kg		
	The relative percent difference (RPD) between the MS and MSD on the batch associated with this sample was 21%. The acceptable RPD for this analysis is 20%. The MS and MSD were both within specifications.						

I COP<sup>V</sup> TO Leggette, Brashears & Graham ATTN: Mr. Ken Vogel

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300  
21:21:17 D 0001 25 138873 676387  
885 0.00 00072200 ASR000



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Respectfully Submitted  
Duane A. Luckenbill, B.S.  
Group Leader, GC/MS Volatiles

LLI Sample No. SW 3202272

Collected: 07/27/99 at 14:30 by MP

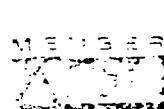
Submitted 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933P.O. N99C403749-A  
Rel. YGQP9900241SPC1TP03 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT	RESULTS	METHOD	DETECTION LIMIT
<b>TCL by 8260 (soil)</b>							
5444	Chloromethane	N.D.	2.	ug/kg	N.D.	2.	
5446	Bromomethane	N.D.	3.	ug/kg	N.D.	4.	
5445	Vinyl Chloride	N.D.	2.	ug/kg	N.D.	2.	
5447	Chloroethane	N.D.	3.	ug/kg	N.D.	4.	
5450	Methylene Chloride	8.	2.	ug/kg	9.	2.	
6293	Acetone	N.D.	7.	ug/kg	N.D.	8.	
6294	Carbon Disulfide	N.D.	3.	ug/kg	N.D.	4.	
5449	1,1-Dichloroethene	N.D.	2.	ug/kg	N.D.	2.	
5452	1,1-Dichloroethane	N.D.	1.	ug/kg	N.D.	1.	
5455	Chloroform	N.D.	1.	ug/kg	N.D.	1.	
5461	1,2-Dichloroethane	N.D.	2.	ug/kg	N.D.	2.	
6296	2-Butanone	N.D.	7.	ug/kg	N.D.	8.	
5457	1,1,1-Trichloroethane	N.D.	1.	ug/kg	N.D.	1.	
5458	Carbon Tetrachloride	N.D.	1.	ug/kg	N.D.	1.	
5465	Bromodichloromethane	N.D.	2.	ug/kg	N.D.	2.	
5480	1,1,2,2-Tetrachloroethane	N.D.	1.	ug/kg	N.D.	1.	
5463	1,2-Dichloropropane	N.D.	3.	ug/kg	N.D.	4.	
6297	trans-1,3-Dichloropropene	N.D.	1.	ug/kg	N.D.	1.	
5462	Trichloroethene	10.	1.	ug/kg	12.	1.	
5470	Dibromochloromethane	N.D.	1.	ug/kg	N.D.	1.	
5467	1,1,2-Trichloroethane	N.D.	2.	ug/kg	N.D.	2.	
5460	Benzene	N.D.	1.	ug/kg	N.D.	1.	
6298	cis-1,3-Dichloropropene	N.D.	1.	ug/kg	N.D.	1.	
5478	Bromoform	N.D.	1.	ug/kg	N.D.	1.	
6299	4-Methyl-2-pentanone	N.D.	3.	ug/kg	N.D.	4.	
6300	2-Hexanone	N.D.	3.	ug/kg	N.D.	4.	
5468	Tetrachloroethene	N.D.	1.	ug/kg	N.D.	1.	
5466	Toluene	N.D.	1.	ug/kg	N.D.	1.	
5472	Chlorobenzene	N.D.	1.	ug/kg	N.D.	1.	
5474	Ethylbenzene	N.D.	1.	ug/kg	N.D.	1.	
5477	Styrene	N.D.	1.	ug/kg	N.D.	1.	
6301	Xylene (Total)	N.D.	1.	ug/kg	N.D.	1.	
5451	trans-1,2-Dichloroethene	N.D.	2.	ug/kg	N.D.	2.	
5454	cis-1,2-Dichloroethene	N.D.	2.	ug/kg	N.D.	2.	

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300


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Tel: 717-556-2300 Fax: 717-556-2681

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 Respectfully Submitted  
 Duane A. Luckenbill, B.S.  
 Group Leader, GC/MS Volatiles

2213 11-19-00

LLI Sample No. SW 3202272

Collected: 07/27/99 at 14:30 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99SP01TP03 Grab Soil Sample  
Site Code: SCC01 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

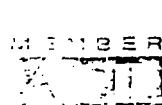
Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933P.O. N99C403749-A  
Ref. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT UNITS	RESULTS	METHOD	DETECTION LIMIT
<b>TCL Pesticides in Solids</b>							
1981	Alpha BHC	N.D.	0.67	ug/kg	N.D.	0.78	
1982	Beta BHC	N.D.	0.67	ug/kg	N.D.	0.78	
1983	Delta BHC	N.D.	0.67	ug/kg	N.D.	0.78	
1213	Gamma BHC - Lindane	N.D.	0.67	ug/kg	N.D.	0.78	
1219	Heptachlor	N.D.	0.67	ug/kg	N.D.	0.78	
1220	Aldrin	N.D.	0.67	ug/kg	N.D.	0.78	
1984	Heptachlor Epoxide	N.D.	0.67	ug/kg	N.D.	0.78	
1989	Endosulfan I	N.D.	0.67	ug/kg	N.D.	0.78	
1222	Dieldrin	N.D.	1.3	ug/kg	N.D.	1.5	
1985	DDE	N.D.	1.3	ug/kg	N.D.	1.5	
1223	Endrin	N.D.	1.3	ug/kg	N.D.	1.5	
1990	Endosulfan II	N.D.	1.3	ug/kg	N.D.	1.5	
1986	DDD	N.D.	1.3	ug/kg	N.D.	1.5	
1991	Endosulfan Sulfate	N.D.	1.3	ug/kg	N.D.	1.5	
1221	DDT	3.7	J	1.3	ug/kg	4.3	J
3017	Endrin Ketone	N.D.	1.3	ug/kg	N.D.	1.5	
1859	Methoxychlor	50.		6.7	ug/kg	58.	7.8
3025	Alpha Chlordane	N.D.	0.67	ug/kg	N.D.	0.78	
3025	Gamma Chlordane	N.D.	0.67	ug/kg	N.D.	0.78	
1988	Toxaphene	N.D.	67.	ug/kg	N.D.	78.	
1992	Endrin Aldehyde	N.D.	1.3	ug/kg	N.D.	1.5	
1993	PCB-1016	N.D.	33.	ug/kg	N.D.	39.	
1994	PCB-1221	N.D.	33.	ug/kg	N.D.	39.	
1995	PCB-1232	N.D.	33.	ug/kg	N.D.	39.	
1996	PCB-1242	N.D.	33.	ug/kg	N.D.	39.	
1997	PCB-1248	N.D.	33.	ug/kg	N.D.	39.	
1998	PCB-1254	N.D.	33.	ug/kg	N.D.	39.	
1999	PCB-1260	N.D.	33.	ug/kg	N.D.	39.	

Due to the nature of the sample matrix, a dilution of the sample was used for analysis. The Limits of Quantitation (LOQ's) were raised accordingly.

This analysis was performed at a 10x dilution of the original sample.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300



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Respectfully Submitted  
Jenifer E. Hess, B.S.  
Group Leader Pesticides/PCBs

10/16/99

**LLI Sample No. SW 3202272**  
 Collected: 07/27/99 at 14:30 by MP

 Submitted: 07/29/99 Reported: 08/16/99  
 Discard: 10/16/99

 SP01TP03 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Account No: 10160

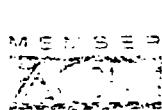
 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

 P.O. N99C403749-A  
 Re1. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT UNITS	RESULTS	METHOD	DETECTION LIMIT
<b>TCL SW846 Semivolatiles Soil</b>							
1185	Phenc1	N.D.	67.	ug/kg	N.D.	78.	
3753	bis(2-Chloroethyl)ether	N.D.	33.	ug/kg	N.D.	39.	
1186	2-Chlorophenol	N.D.	33.	ug/kg	N.D.	39.	
3754	1,3-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
1187	1,4-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
3755	1,2-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
4690	2-Methylphenol	N.D.	33.	ug/kg	N.D.	39.	
4691	2,2'-Oxybis(1-Chloropropane)	N.D.	33.	ug/kg	N.D.	39.	
4692	4-Methylphenol	N.D.	67.	ug/kg	N.D.	78.	
1188	N-Nitroso-di-n-propylamine	N.D.	33.	ug/kg	N.D.	39.	
3757	Hexachloroethane	N.D.	33.	ug/kg	N.D.	39.	
3758	Nitrobenzene	N.D.	33.	ug/kg	N.D.	39.	
3759	Isophorone	N.D.	33.	ug/kg	N.D.	39.	
3746	2-Nitrophenol	N.D.	67.	ug/kg	N.D.	78.	
3747	2,4-Dimethylphenol	N.D.	67.	ug/kg	N.D.	78.	
3760	bis(2-Chloroethoxy)methane	N.D.	67.	ug/kg	N.D.	78.	
3748	2,4-Dichlorophenol	N.D.	67.	ug/kg	N.D.	78.	
1189	1,2,4-Trichlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
3761	Naphthalene	N.D.	33.	ug/kg	N.D.	39.	
4693	4-Chloroaniline	N.D.	33.	ug/kg	N.D.	39.	
3762	Hexachlorobutadiene	N.D.	67.	ug/kg	N.D.	78.	
1190	4-Chloro-3-methylphenol	N.D.	67.	ug/kg	N.D.	78.	
4694	2-Methylnaphthalene	N.D.	33.	ug/kg	N.D.	39.	
3763	Hexachlorocyclopentadiene	N.D.	170.	ug/kg	N.D.	200.	
3749	2,4,6-Trichlorophenol	N.D.	67.	ug/kg	N.D.	78.	
4695	2,4,5-Trichlorophenol	N.D.	67.	ug/kg	N.D.	78.	
3764	2-Chloronaphthalene	N.D.	33.	ug/kg	N.D.	39.	
4696	2-Nitroaniline	N.D.	33.	ug/kg	N.D.	39.	
3766	Dimethylphthalate	N.D.	67.	ug/kg	N.D.	78.	
3765	Acenaphthylene	N.D.	33.	ug/kg	N.D.	39.	

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.

Questions? Contact your Client Services Representative  
 Kathy Klinefelter at (717) 656-2300


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 Tel: 717-656-2300 Fax: 717-656-2581

 Respectfully Submitted  
 Charles J. Neslund, B.S.  
 Group Leader, GC/MS SVOA

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223 11 11

**LLI Sample No. SW 3202272**  
 Collected: 07/27/99 at 14:30 by MP

 Submitted: 07/29/99 Reported: 08/16/99  
 Discard: 10/16/99

 SP01TP03 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Account No: 10160

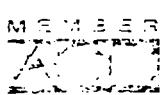
 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

 P.O. N99C403749-A  
 ReL. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT	RESULTS	METHOD	DETECTION LIMIT
<b>TCL SW846 Semivolatiles/Soil</b>							
4697	3-Nitroaniline	N.D.	67.	ug/kg	N.D.	78.	
1191	Acenaphthene	N.D.	33.	ug/kg	N.D.	39.	
3750	2,4-Dinitrophenol	N.D.	230.	ug/kg	N.D.	270.	
1192	4-Nitrophenol	N.D.	170.	ug/kg	N.D.	200.	
4698	Dibenzofuran	N.D.	33.	ug/kg	N.D.	39.	
1193	2,4-Dinitrotoluene	N.D.	67.	ug/kg	N.D.	78.	
3767	2,6-Dinitrotoluene	N.D.	33.	ug/kg	N.D.	39.	
3770	Diethylphthalate	N.D.	67.	ug/kg	N.D.	78.	
3769	4-Chlorophenyl-phenylether	N.D.	33.	ug/kg	N.D.	39.	
3768	Fluorene	N.D.	33.	ug/kg	N.D.	39.	
4700	4-Nitroaniline	N.D.	67.	ug/kg	N.D.	78.	
3751	4,6-Dinitro-2-methylphenol	N.D.	170.	ug/kg	N.D.	200.	
3772	N-Nitrosodiphenylamine	N.D.	33.	ug/kg	N.D.	39.	
3773	4-Bromophenyl-phenylether	N.D.	67.	ug/kg	N.D.	78.	
3774	Hexachlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
1194	Pentachlorophenol	N.D.	170.	ug/kg	N.D.	200.	
3775	Phenanthrene	280.	J	33.	320.	J	39.
3775	Anthracene	65.	J	33.	76.	J	39.
4702	Carbazole	N.D.	33.	ug/kg	N.D.	39.	
3777	Di-n-butylphthalate	N.D.	67.	ug/kg	N.D.	78.	
3778	Fluoranthene	450.		33.	520.		39.
1195	Pyrene	400.		33.	470.		39.
3780	Butylbenzylphthalate	N.D.	67.	ug/kg	N.D.	78.	
3783	3,3'-Dichlorobenzidine	N.D.	67.	ug/kg	N.D.	78.	
3781	Benz(a)anthracene	260.	J	33.	300.	J	39.
3784	bis(2-Ethylhexyl)phthalate	N.D.	67.	ug/kg	N.D.	78.	
3782	Chrysene	270.	J	33.	310.	J	39.
3785	Di-n-octylphthalate	N.D.	67.	ug/kg	N.D.	78.	
3786	Benz(b)fluoranthene	270.	J	33.	320.	J	39.
3787	Benz(k)fluoranthene	120.	J	33.	140.	J	39.
3788	Benz(a)pyrene	190.	J	33.	220.	J	39.
3789	Inderol(1,2,3-cd)pyrene	120.	J	33.	140.	J	39.
3790	Dibenz(a,h)anthracene	34.	J	33.	40.	J	39.
3791	Benz(g,h,i)perylene	100.	J	33.	120.	J	39.

N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine.  
 The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.

Questions? Contact your Client Services Representative  
 Kathy Klinefelter at (717) 656-2300


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 Respectfully Submitted  
 Charles J. Neslund, B.S.  
 Group Leader, GC/MS SVOA

LLI Sample No. SW 3202272

Collected: 07/27/99 at 14:30 by MP

Submitted: 07/29/99

SP01TP03 Grab Soil Sample

Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH  
1TP03 SDG#:
 Account No: 10160  
 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS		ANALYST
				ID	DATE AND TIME	
6292	TCL by 8260 (soil)	SW-846 8260B	1		08/03/99 1612	Bryan J. Polick
0819	Solid Sample Pesticide Extract	SW-846 3550B	1		07/31/99 0720	Ginelle L. Haines
1225	TCL Pesticides in Solids	SW-846 8081A/8082	1		08/04/99 0535	Douglas D. Seitz
0381	BNA Soil Extraction	SW-846 3550B	1		08/03/99 2000	Karen L. Beyer
4683	TCL SW846 Semivolatiles Soil	SW-846 8270C	1		08/05/99 0959	Michele A. Jarosick
4689	TCL SW846 Semivolatiles/Soil	SW-846 8270C	1		08/05/99 0959	Michele A. Jarosick
1123	Cyanide (Reactivity)	SW-846 9012	1		08/05/99 2156	Venia M. McFadden
0111	Moisture	EPA 160.3 modified	1		08/01/99 1929	Gabriel Agosto
0394	pH	SW-846 9045C (modified)	1		08/03/99 2200	Luz M. Groff
0542	Ignitability	40 CFR 261.21	1		08/04/99 1130	Catherine L. Cammauf
1121	Reactivity	SW-846 Chapter 7.3	1		08/05/99 0805	Susan E. Hibner
1122	Sulfide (Reactivity)	SW-846 9034	1		08/05/99 0805	Susan E. Hibner


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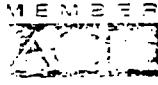


LII Sample No. 3202272

SP01TP03 Grab Soil Sample

Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OHGroup No. 676387  
Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
6292 TCL by 8260 (soil)		Batch: E992121AD									
5444 Chloromethane											
2. ug/kg		N.D.		105	108	2	104			48	130
5446 Bromomethane											
3. ug/kg		N.D.		99	108	9	99			46	134
5445 Vinyl Chloride											
2. ug/kg		N.D.		108	113	5	100			60	127
5447 Chloroethane											
3. ug/kg		N.D.		99	104	5	96			30	142
5450 Methylene Chloride											
2. ug/kg		N.D.		9	1	6	104			69	126
6293 Acetone											
7. ug/kg		N.D.		104	99	6	78			46	133
6294 Carbon Disulfide											
3. ug/kg		N.D.		96	97	1	88			52	165
5449 1,1-Dichloroethene											
2. ug/kg		N.D.		112	112	0	103			69	146
5452 1,1-Dichloroethane											
1. ug/kg		N.D.		113	117	3	114			81	130
5455 Chloroform											
1. ug/kg		N.D.		107	114	7	113			82	123
5461 1,2-Dichloroethane											
2. ug/kg		N.D.		103	109	6	115			81	123
6296 2-Butanone											
7. ug/kg		N.D.		114	117	2	110			47	153
5457 1,1,1-Trichloroethane											
1. ug/kg		N.D.		110	115	4	120			84	132
5458 Carbon Tetrachloride											
1. ug/kg		N.D.		109	116	6	121			78	129
5465 Bromodichloromethane											
2. ug/kg		N.D.		106	112	6	114			80	121
5480 1,1,2,2-Tetrachloroethane											
1. ug/kg		N.D.		108	108	0	101			70	124
5463 1,2-Dichloropropane											
3. ug/kg		N.D.		113	117	4	114			77	127
6297 trans-1,3-Dichloropropene											
1. ug/kg		N.D.		103	108	4	105			69	131
5462 Trichloroethene											
1. ug/kg		N.D.		111	116	5	112			81	123
5470 Dibromochloromethane											
1. ug/kg		N.D.		106	109	3	112			80	120
5467 1,1,2-Trichloroethane											
2. ug/kg		N.D.		111	110	1	108			81	124
5460 Benzene											
1. ug/kg		N.D.		116	119	2	113			77	126
6298 cis-1,3-Dichloropropene											
1. ug/kg		N.D.		110	115	4	112			79	126

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221-1000-000

LLI Sample No. 3202272

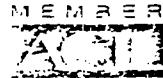
 SP01TP03 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

 Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
5478	Bromoform										
1.	ug/kg	N.D.		102	101	1	107			73	120
6299	4-Methyl-3-pentanone										
3.	ug/kg	N.D.		102	108	6	110			63	123
6300	2-Hexanone										
3.	ug/kg	N.D.		105	107	1	104			60	128
5468	Tetrachloroethene										
1.	ug/kg	N.D.		115	120	4	114			83	150
5466	Toluene										
1.	ug/kg	N.D.		114	113	1	105			74	128
5472	Chlorobenzene										
1.	ug/kg	N.D.		114	112	2	108			81	121
5474	Ethylbenzene										
1.	ug/kg	N.D.		117	116	0	112			86	129
5477	Styrene										
1.	ug/kg	N.D.		116	114	2	108			84	127
6301	Xylene (Total)										
1.	ug/kg	N.D.		117	116	1	111			88	128
5451	trans-1,2-Dichloroethene										
2.	ug/kg	N.D.		115	119	4	111			73	126
5454	cis-1,2-Dichloroethene										
2.	ug/kg	N.D.		113	117	3	112			84	123
1225	TCL Pesticides in Solids	Batch: 992110011A									
1981	Alpha BHC										
0.67	ug/kg	N.D.		84	85	1	102			38	156
1982	Beta BHC										
0.67	ug/kg	N.D.		94	93	1	97			40	153
1983	Delta BHC										
0.67	ug/kg	N.D.		76	76	0	97			44	145
1218	Gamma BHC - Lindane										
0.67	ug/kg	N.D.		84	83	1	102			51	142
1219	Heptachlor										
0.67	ug/kg	N.D.		85	81	5	100			59	140
1220	Aldrin										
0.67	ug/kg	N.D.		105	100	4	100			55	132
1984	Heptachlor Epoxide										
0.67	ug/kg	N.D.		93	91	2	99			58	129
1989	Endosulfan I										
0.67	ug/kg	N.D.		185	185	0	81			56	123
1222	Cieldrin										
1.3	ug/kg	N.D.		86	85	1	90			63	133
1985	DDE										
1.3	ug/kg	N.D.		102	101	1	101			47	159
1223	Endrin										
1.3	ug/kg	N.D.		105	104	0	112			70	150
1990	Endcsulfan II										
1.3	ug/kg	N.D.		44	51	16	39			46	138

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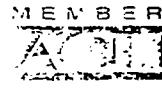
Page: 9 of 13

LLI Sample No. 3202272

SP01TP03 Grab Soil Sample

Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OHGroup No. 676387  
Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
1986 DDD											
	1.3 ug/kg	N.D.		108	107	1	101			53	141
1991 Endosulfan Sulfate											
	1.3 ug/kg	N.D.		88	84	5	108			40	150
1221 DDT											
	1.3 ug/kg	N.D.		107	107	0	110			60	138
3017 Endrin Ketone											
	1.3 ug/kg	N.D.		90	90	0	92			62	137
1859 Methoxychlor											
	6.7 ug/kg	N.D.		132	124	6	128			52	174
3025 Alpha Chlordane											
	0.67 ug/kg	N.D.		151	149	1	100			68	141
3025 Gamma Chlordane											
	0.67 ug/kg	N.D.		100	97	2	97			65	129
1988 Toxaphene											
	67. ug/kg	N.D.									
1992 Endrin Aldehyde											
	1.3 ug/kg	N.D.		82	82	1	83			75	125
1993 PC3-1016											
	33. ug/kg	N.D.									
1994 PC3-1221											
	33. ug/kg	N.D.									
1995 PC3-1232											
	33. ug/kg	N.D.									
1995 PC3-1242											
	33. ug/kg	N.D.									
1997 PC3-1248											
	33. ug/kg	N.D.									
1998 PC3-1254											
	33. ug/kg	N.D.									
1999 PC3-1260											
	33. ug/kg	N.D.									
4688 TCL SW846 Semivolatiles	Soil	Batch: 99215SLD026									
1185 Phenol											
	67. ug/kg	N.D.		63	49	24	87			40	128
3753 bis(2-Chloroethyl)ether											
	33. ug/kg	N.D.		58	42	32	91			38	131
1185 2-Chlorophenol											
	33. ug/kg	N.D.		62	47	28	90			44	127
3754 1,3-Dichlorobenzene											
	33. ug/kg	N.D.		44	28	44	87			31	121
1187 1,4-Dichlorobenzene											
	33. ug/kg	N.D.		44	29	43	86			36	119
3755 1,2-Dichlorobenzene											
	33. ug/kg	N.D.		48	31	42	88			39	120
4690 2-Methylphenol											
	33. ug/kg	N.D.		61	48	25	89			42	127



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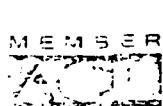
LLI Sample No. 3202272

 SP01TP01 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

 Group No. 676387  
 Chrysler Corporation

SAMPLE MDL.	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
4691 2,2'-oxybis(1-Chloropropane)											
33. ug/kg		N.D.		54	38	34	88			38	151
4692 4-Methylphenol											
67. ug/kg		N.D.		62	49	23	89			33	139
1188 N-Nitroso-di-n-propylamine											
33. ug/kg		N.D.		64	49	26	92			39	142
3757 Hexachloroethane											
33. ug/kg		N.D.		44	28	44	89			29	128
3758 N-trobenzene											
33. ug/kg		N.D.		59	44	29	91			42	131
3759 Isophorone											
33. ug/kg		N.D.		61	47	25	89			46	130
3746 2-Nitrophenol											
57. ug/kg		N.D.		65	50	28	97			36	141
3747 2,4-Dimethylphenol											
67. ug/kg		N.D.		60	48	22	90			40	132
3760 bis(2-Chloroethoxy)methane											
67. ug/kg		N.D.		63	49	26	93			44	127
3748 2,4-Dichlorophenol											
67. ug/kg		N.D.		64	50	23	91			41	128
1189 1,2,4-Trichlorobenzene											
33. ug/kg		N.D.		54	39	32	92			44	121
3761 Naphthalene											
33. ug/kg		N.D.		55	41	31	89			34	133
4693 4-Chloraniline											
33. ug/kg		N.D.		50	41	18	42			1	113
3762 Hexachlorobutadiene											
57. ug/kg		N.D.		52	36	36	92			39	133
1190 4-Chloro-3-methylphenol											
57. ug/kg		N.D.		65	52	22	93			47	135
4694 2-Methylnaphthalene											
33. ug/kg		N.D.		59	45	27	90			43	131
3763 Hexachlorocyclopentadiene											
170. ug/kg		N.D.		35	24	38	69			1	141
3749 2,4,6-Trichlorophenol											
57. ug/kg		N.D.		64	52	22	90			39	141
4695 2,4,5-Trichlorophenol											
57. ug/kg		N.D.		64	52	21	87			45	136
3764 2-Chloronaphthalene											
33. ug/kg		N.D.		64	51	23	92			48	127
4696 2-Nitroaniline											
33. ug/kg		N.D.		71	58	21	101			25	139
3766 Dimethylphthalate											
67. ug/kg		N.D.		67	55	21	95			53	127
3765 Acenaphthylene											
33. ug/kg		N.D.		62	50	21	89			44	126

^589 TCL SW846 Semivolatiles/Soil Batch: 99215SLD026


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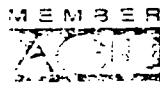
Page: 11 of 13

LLI Sample No. 3202272

SP01TP03 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
4697	3-Nitroaniline										
67.	ug/kg	N.D.		61	52	17	66			18	117
1191	Acenaphthene										
33.	ug/kg	N.D.		63	51	21	91			47	127
3750	2,4-Dinitrophenol										
230.	ug/kg	N.D.		35	26	29	55			1	133
1192	4-Nitrophenol										
170.	ug/kg	N.D.		60	46	27	83			31	161
4698	Dibenzofuran										
33.	ug/kg	N.D.		66	54	21	93			53	125
1193	2,4-Dinitrotoluene										
67.	ug/kg	N.D.		67	54	21	95			50	131
3767	2,6-Dinitrotoluene										
33.	ug/kg	N.D.		71	58	21	103			53	130
3770	Diethylphthalate										
67.	ug/kg	N.D.		68	56	20	97			54	130
3769	4-Chlorophenyl-phenylether										
33.	ug/kg	N.D.		67	54	21	92			47	132
3768	Fluorene										
33.	ug/kg	N.D.		65	53	20	92			42	142
4700	4-Nitroaniline										
67.	ug/kg	N.D.		64	52	20	86			30	127
3751	4,6-Dinitro-2-methylphenol										
170.	ug/kg	N.D.		52	37	33	76			14	143
3772	N-Nitrosodiphenylamine										
33.	ug/kg	N.D.		70	57	21	97			49	130
3773	4-Bromophenyl-phenylether										
67.	ug/kg	N.D.		70	57	22	96			53	132
3774	Hexachlorobenzene										
33.	ug/kg	N.D.		70	56	22	95			40	144
1194	Pertachlorophenol										
170.	ug/kg	N.D.		34	22	41	61			20	132
3775	Phenanthrene										
33.	ug/kg	N.D.		69	45	30	94			42	141
3776	Anthracene										
33.	ug/kg	N.D.		69	52	25	95			45	132
4702	Carbazole										
33.	ug/kg	N.D.		70	55	23	94			48	129
3777	Di-n-butylphthalate										
67.	ug/kg	N.D.		71	56	23	97			54	133
3778	Fluoranthene										
33.	ug/kg	N.D.		64	36	33	92			37	142
1195	Pyrene										
33.	ug/kg	N.D.		67	43	28	103			34	145
3780	Butylbenzylphthalate										
67.	ug/kg	N.D.		72	59	21	104			47	138
3783	3,3'-Dichlorobenzidine										
67.	ug/kg	N.D.		58	50	15	69			2	132
3781	Benzo(a)anthracene										
33.	ug/kg	N.D.		69	47	29	94			44	133



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2211-10-10



LLI Sample No. 3202272

SP01TP03 Grab Soil Sample

Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OHGroup No. 676387  
Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LCS HIGH
3784 bis(2-Ethylhexyl)phthalate 67. ug/kg		N.D.		77	62	21	109			41	145
3782 Chrysene 33. ug/kg		N.D.		69	47	29	96			42	136
3785 Di-n-octylphthalate 67. ug/kg		N.D.		83	67	21	117			43	156
3786 Benzo(b)fluoranthene 33. ug/kg		N.D.		63	45	24	94			35	140
3787 Benzo(k)fluoranthene 33. ug/kg		N.D.		71	54	25	99			38	145
3788 Benzo(a)pyrene 33. ug/kg		N.D.		67	50	23	98			38	141
3789 Indeno(1,2,3-cd)pyrene 33. ug/kg		N.D.		66	53	20	98			30	153
3790 Dibenz(a,h)anthracene 33. ug/kg		N.D.		70	56	21	97			32	151
3791 Benzo(g,h,i)perylene 33. ug/kg		N.D.		68	53	22	97			29	151
123 Cyanide (Reactivity) 100. mg/kg		Batch: 99217104201 N.D.	0 (1)	3	2	37	105			88	121
0111 Moisture 0.50 % by wt.		Batch: 992130091820002A		1			100	100	0	99	101
394 pH 0.010		Batch: 992150239039400A		0			99	100	1	98	102
0542 Ignitability		Batch: 992160286054200A								80	120
121 Reactivity see below		Batch: 992170416112100A									
1122 Sulfide (Reactivity) 39. mg/kg		Batch: 992170416112100A N.D.	0 (1)	24	29	21	85				

(1) The result for one or both determinations was less than five times the LOQ.

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2216 Rev. 10/00



LLI Sample No. 3202272

SP01TP03 Grab Soil Sample

Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OHGroup No. 676387  
Chrysler Corporation

TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS	
			LOW	HIGH
1225 TCL Pesticides in Solids	TCX	122	30	163
	DCB	180	42	184
4688 TCL SW846 Semivolatiles Soil	Phenol-d6	78	47	127
	2-Flphenol	71	47	126
	2,4,6-TBP	77	36	150
4689 TCL SW846 Semivolatiles/Soil	Nitrobz-d5	65	45	128
	2-Fbiphenyl	68	49	123
	Tphenyld14	95	40	146
6292 TCL by 8260 (soil)	DBFM	105	80	120
	d4-1,2-DCA	101	80	120
	d8-toluene	101	81	117
	4-BFB	100	74	121

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QCTA Pg. 13

REC 8/2/1999

**LLI Sample No. TL 3202273**  
 Collected: 07/27/99 at 14:30 by MP

 Submitted: 07/29/99 Reported: 08/16/99  
 Discard: 10/16/99

 SPC1TP03 Grab Soil Sample (TCLP Non-Volatile Ext.)  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Account No: 10160

 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

 P.O. N99C403749-A  
 ReL. YGQP9900241

 ENTERED IN SYSTEM + ArcView  
 EXP DATE MCP 8/26/99  
 CHECKED BY KLV  
 DATE 8-27-99

## AS RECEIVED

CAT NC.	ANALYSIS NAME	RESULTS	METHOD		
			DETECTION	LIMIT	UNITS
1746	Barium	0.57	0.0015	mg/l	
1751	Chromium	N.D.	0.0054	mg/l	
1753	Copper	N.D.	0.0058	mg/l	
1755	Lead	N.D.	0.023	mg/l	
1766	Silver	N.D.	0.0057	mg/l	
7035	Arsenic TR	N.D.	0.0070	mg/l	
7036	Selenium TR	0.0060 J	0.0059	mg/l	
7049	Cadmium TR	0.0024	0.00063	mg/l	
7072	Zinc TR	0.071	0.0036	mg/l	
0259	Mercury	N.D.	0.000042	mg/l	

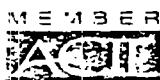
The metal analyses were performed on a non-volatile leachate prepared according to the procedure specified in SW-846, Chapter 7.4 (Revision 3, December, 1994). A sample is considered to have failed the Toxicity Characteristic (TC) test and is considered a hazardous waste if any of the metal concentrations (mg/l) in the leachate exceed the following maxima (100 times the Primary Drinking Water Standards):

Arsenic	5.0	Cadmium	1.0	Lead	5.0	Selenium	1.0
Barium	100.0	Chromium	5.0	Mercury	0.2	Silver	5.0

1 COPY TO Leggette, Brashears &amp; Graham ATTN: Mr. Ken Vogel

Questions? Contact your Client Services Representative  
 Kathy Klinefelter at (717) 656-2300  
 21:23:27 D 0001 25 138873 676387  
 885 0.00 00013600 ASR000

Respectfully Submitted  
 Duane A. Luckenbill, B.S.  
 Group Leader, GC/MS Volatiles


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2216 Rev 3 23 94



LLI Sample No. TL 3202273

Collected: 07/27/99 at 14:30 by MP

Submitted: 07/29/99

SPC1TP03 Grab Soil Sample (TCLP Non-Volatile Ext.)

Site Code: SC001 RFA#: YGQP9900241

Dayton Thermal Products/Dayton, OH

SDG#:

Account No: 10160  
 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
1745	Barium	SW-846 6010B	1		08/10/99 2310	Donna R. Sackett
1751	Chromium	SW-846 6010B	1		08/10/99 2310	Donna R. Sackett
1753	Copper	SW-846 6010B	1		08/10/99 2310	Donna R. Sackett
1755	Lead	SW-846 6010B	1		08/10/99 2310	Donna R. Sackett
1765	Silver	SW-846 6010B	1		08/10/99 2310	Donna R. Sackett
5705	WW/TL SW 846 ICP Digest (tot)	SW-846 3010A	1		08/03/99 2139	Marie D. Kimmel
7035	Arsenic TR	SW-846 6010B	1		08/10/99 2310	Donna R. Sackett
7036	Selenium TR	SW-846 6010B	1		08/16/99 0453	Donna R. Sackett
7049	Cadmium TR	SW-846 6010B	1		08/10/99 2310	Donna R. Sackett
7072	Zinc TR	SW-846 6010B	1		08/10/99 2310	Donna R. Sackett
0259	Mercury	SW-846 7470A	1		08/04/99 1654	Nelli S. Markaryan
5713	WW SW846 Hg Digest	SW-846 7470A	1		08/03/99 2115	Nelli S. Markaryan
0947	TCLP Non-volatile Extraction	SW-846 1311	1		08/02/99 1500	James D. Cowan



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LLI Rev. 3/23/01



LLI Sample No. 3202273

SP01.TP03 Grab Soil Sample (TCLP Non-Volatile Ext.)  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
1746 Barium 0.0015	mg/l	Batch: 992155705003 N.D.	0 (1)	84	85	1	100			80	120
.751 Chromium 0.0054	mg/l	Batch: 992155705003 N.D.	0 (1)	83	84	2	102			80	120
1753 Copper 0.0058	mg/l	Batch: 992155705003 N.D.	3	85	85	0	99			80	120
.755 Lead 0.023	mg/l	Batch: 992155705003 N.D.	0 (1)	82	83	1	100			80	120
1766 Silver 0.0057	mg/l	Batch: 992155705003 N.D.	0 (1)	77	78	1	98			80	120
035 Arsenic TR 0.0070	mg/l	Batch: 992155705003 N.D.	2	81	81	0	97			80	120
7036 Selenium TR 0.0059	mg/l	Batch: 992155705003 N.D.	0 (1)	84	82	2	100			80	120
049 Cadmium TR 0.0063	mg/l	Batch: 992155705003 N.D.	0 (1)	84	85	1	100			80	120
.072 Zinc TR 0.0036	mg/l	Batch: 992155705003 N.D.	0 (1)	85	86	1	99			80	120
2259 Mercury 0.000042	mg/l	Batch: 992155713003 N.D.	0 (1)	80	76	6	102			80	120

1) The result for one or both determinations was less than five times the LOQ.



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2216 Rev. C 11



# Lancaster Laboratories

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Page: 1 of 13

AUG 29 1999

LLI Sample No. SW 3202274

Collected: 07/27/99 at 14:55 by MP

Submitted: 07/29/99 Reported: 08/16/99

Discard: 10/16/99

SP01TP04 Gras Soil Sample  
Site Code: SCCC01 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

P.O. N99C403749-A  
Ref. YGQP9900241

+ Acc Ver

MCP 8/26/99

NUF  
8-27-99

## AS RECEIVED

CAT NO.	ANALYSIS NAME	RESULTS	METHOD	DETECTION LIMIT	UNITS
---------	---------------	---------	--------	-----------------	-------

6292	TCL by 8260 (soil)			See Page	2
1225	TCL Pesticides in Solids			See Page	3
4688	TCL SW846 Semivolatiles Soil			See Page	4
4689	TCL SW846 Semivolatiles/Soil			See Page	5
1123	Cyanide (Reactivity)	N.D.	100.	mg/kg	
0111	Moisture	15.8	0.50	% by wt.	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
0394	pH	7.86	0.010		
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.				
0496	Corrosivity	See Below	1.0	See Below	
	Corrosivity:				
	The pH of a 1:1 slurry (with deionized water) was 7.86 indicating that the waste is not corrosive.				
	A waste is corrosive if it exhibits a pH equal to or less than 2 or equal to or greater than 12.5.				
0542	Ignitability	See Below		See Below	
	The sample did not spontaneously ignite when exposed to air or water.				
	The sample did not ignite by friction.				
	The sample vapors did not ignite when exposed to a flame using a closed cup apparatus.				
1121	Reactivity	See Below		See Below	
	Reactivity				
	The sample was extracted by the interim method described in SW 846, Chapter 7.3. This solution was analyzed for cyanide and sulfide.				
	This waste is not considered reactive and hazardous because it does not generate a quantity of hydrogen cyanide exceeding 250 mg/kg or hydrogen sulfide exceeding 500 mg/kg. These interim threshold limits were established by the Solid Waste Branch of EPA, July, 1992. These results do not reflect total cyanide or total sulfide.				
1122	Sulfide (Reactivity)	N.D.	39.	mg/kg	
	The relative percent difference (RPD) between the MS and MSD on the batch associated with this sample was 21%. The acceptable RPD for this analysis is 20%. The MS and MSD were both within specifications.				

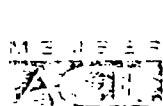
DRY WEIGHT	METHOD
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RESULTS	DETECTION LIMIT
---------	-----------------

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Questions? Contact your Client Services Representative  
 Kathy Klinefelter at (717) 656-2300  
 21:23:54 D 0001 25 138873 676387  
 885 0.00 00072200 ASR000

Respectfully Submitted  
 Duane A. Luckenbill, B.S.  
 Group Leader, GC/MS Volatiles



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 Lancaster, PA 17605-2425  
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2215 Rev. 3 10/97



LLI Sample No. SW 3202274

Collected: 07/27/99 at 14:55 by MP

Submitted: 07/29/99 Reported: 08/16/99

Discard: 10/16/99

SP01TP04 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

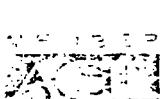
Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

P.O. N99C403749-A  
Ref. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT UNITS	RESULTS	METHOD	DETECTION LIMIT
TCL by 8260 (soil)							
5444	Chloromethane	N.D.	2.	ug/kg	N.D.	2.	
5446	Bromomethane	N.D.	3.	ug/kg	N.D.	4.	
5445	Vinyl Chloride	N.D.	2.	ug/kg	N.D.	2.	
5447	Chloroethane	N.D.	3.	ug/kg	N.D.	4.	
5450	Methylene Chloride	10.	2.	ug/kg	11.	2.	
6293	Acetone	15.	J	7.	18.	J	8.
6294	Carbon Disulfide	N.D.	3.	ug/kg	N.D.	4.	
5449	1,1-Dichloroethene	N.D.	2.	ug/kg	N.D.	2.	
5452	1,1-Dichloroethane	N.D.	1.	ug/kg	N.D.	1.	
5455	Chloroform	N.D.	1.	ug/kg	N.D.	1.	
5461	1,2-Dichloroethane	N.D.	2.	ug/kg	N.D.	2.	
6296	2-Butanone	N.D.	7.	ug/kg	N.D.	8.	
5457	1,1,1-Trichloroethane	N.D.	1.	ug/kg	N.D.	1.	
5458	Carbon Tetrachloride	N.D.	1.	ug/kg	N.D.	1.	
5465	Bromodichromethane	N.D.	2.	ug/kg	N.D.	2.	
5480	1,1,2,2-Tetrachloroethane	N.D.	1.	ug/kg	N.D.	1.	
5463	1,2-Dichloropropane	N.D.	3.	ug/kg	N.D.	4.	
6297	trans-1,3-Dichloropropene	N.D.	1.	ug/kg	N.D.	1.	
5462	Trichloroethene	3.	J	1.	4.	J	1.
5470	Dibromochromethane	N.D.	1.	ug/kg	N.D.	1.	
5467	1,1,2-Trichloroethane	N.D.	2.	ug/kg	N.D.	2.	
5460	Benzene	N.D.	1.	ug/kg	N.D.	1.	
6298	cis-1,3-Dichloropropene	N.D.	1.	ug/kg	N.D.	1.	
5478	Bromoform	N.D.	1.	ug/kg	N.D.	1.	
6299	4-Methyl-2-pentanone	N.D.	3.	ug/kg	N.D.	4.	
6300	2-Hexanone	N.D.	3.	ug/kg	N.D.	4.	
5468	Tetrachloroethene	N.D.	1.	ug/kg	N.D.	1.	
5466	Toluene	N.D.	1.	ug/kg	N.D.	1.	
5472	Chlorobenzene	N.D.	1.	ug/kg	N.D.	1.	
5474	Ethylbenzene	N.D.	1.	ug/kg	N.D.	1.	
5477	Styrene	N.D.	1.	ug/kg	N.D.	1.	
6301	Xylene (Total)	N.D.	1.	ug/kg	N.D.	1.	
5451	trans-1,2-Dichloroethene	N.D.	2.	ug/kg	N.D.	2.	
5454	cis-1,2-Dichloroethene	7.		2.	8.		2.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300



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Respectfully Submitted  
Duane A. Luckenbill, B.S.  
Group Leader, GC/MS Volatiles



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Page: 3 of 13

LLI Sample No. SW 3202274

Collected: 07/27/99 at 14:55 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

SPO1TP04 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

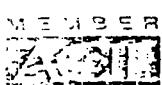
P.O. N99C403749-A  
Ref. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT	
		RESULTS	METHOD	DETECTION LIMIT UNITS	RESULTS	METHOD
TCL Pesticides in Solids						
1981	Alpha BHC	N.D.	0.67	ug/kg	N.D.	0.80
1982	Beta BHC	N.D.	0.67	ug/kg	N.D.	0.80
1983	Delta BHC	N.D.	0.67	ug/kg	N.D.	0.80
1218	Gamma BHC + Lindane	N.D.	0.67	ug/kg	N.D.	0.80
1219	Heptachlor	N.D.	0.67	ug/kg	N.D.	0.80
1220	Aldrin	N.D.	0.67	ug/kg	N.D.	0.80
1984	Heptachlor Epoxide	1.69	J	0.67 ug/kg	2.00	J 0.80
1989	Endosulfan I	N.D.	0.67	ug/kg	N.D.	0.80
1222	Dieldrin	N.D.	1.3	ug/kg	N.D.	1.5
1985	DDE	N.D.	1.3	ug/kg	N.D.	1.5
1223	Endrin	1.7	J	1.3 ug/kg	2.1	J 1.5
1990	Endosulfan II	N.D.	1.3	ug/kg	N.D.	1.5
1986	DDO	N.D.	1.3	ug/kg	N.D.	1.5
1991	Endosulfan Sulfate	N.D.	1.3	ug/kg	N.D.	1.5
1221	DDT	15.1		1.3 ug/kg	17.9	1.5
3017	Endrin Ketone	N.D.	1.3	ug/kg	N.D.	1.5
1859	Methoxychlor	13.5	J	6.7 ug/kg	16.0	J 8.0
3025	Alpha Chlordane	N.D.	0.67	ug/kg	N.D.	0.80
3026	Gamma Chlordane	N.D.	0.67	ug/kg	N.D.	0.80
1988	Toxaphene	N.D.	67.	ug/kg	N.D.	80.
1992	Endrin Aldehyde	N.D.	1.3	ug/kg	N.D.	1.5
1993	PCB-1016	N.D.	33.	ug/kg	N.D.	39.
1994	PCB-1221	N.D.	33.	ug/kg	N.D.	39.
1995	PCB-1232	N.D.	33.	ug/kg	N.D.	39.
1996	PCB-1242	N.D.	33.	ug/kg	N.D.	39.
1997	PCB-1248	N.D.	33.	ug/kg	N.D.	39.
1998	PCB-1254	N.D.	33.	ug/kg	N.D.	39.
1999	PCB-1260	N.D.	33.	ug/kg	N.D.	39.

Due to the nature of the sample matrix, a dilution of the sample was used for analysis. The Limits of Quantitation (LOQ's) were raised accordingly.

This analysis was performed at a 10x dilution of the original sample.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300



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Lancaster, PA 17605-2425

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Respectfully Submitted  
Jennifer E. Hess, B.S.  
Group Leader Pesticides/PCBs

22-15-11



LLI Sample No. SW 3202274

Collected: 07/27/99 at 14:55 by MP

Submitted: 07/29/99 Reported: 08/16/99

Discard: 10/16/99

SP01TP04 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933P.O. N99C403749-A  
ReL. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT			
		RESULTS	METHOD DETECTION LIMIT	UNITS	RESULTS	METHOD DETECTION LIMIT		
TCL SW346 Semivolatiles Soil								
1185	Phenol	N.D.	67.	ug/kg	N.D.	80.		
3753	bis(2-Chloroethyl)ether	N.D.	33.	ug/kg	N.D.	39.		
1186	2-Chlorophenol	N.D.	33.	ug/kg	N.D.	39.		
3754	1,3-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.		
1187	1,4-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.		
3755	1,2-Dichlorobenzene	N.D.	33.	ug/kg	N.D.	39.		
4690	2-Methylphenol	N.D.	33.	ug/kg	N.D.	39.		
4691	2,2'-oxybis(1-Chloropropane)	N.D.	33.	ug/kg	N.D.	39.		
4692	4-Methylphenol	N.D.	67.	ug/kg	N.D.	80.		
1188	N-Nitroso-di-n-propylamine	N.D.	33.	ug/kg	N.D.	39.		
3757	Hexachloroethane	N.D.	33.	ug/kg	N.D.	39.		
3758	Nitrobenzene	N.D.	33.	ug/kg	N.D.	39.		
3759	Isophorone	N.D.	33.	ug/kg	N.D.	39.		
3746	2-Nitrophenol	N.D.	67.	ug/kg	N.D.	80.		
3747	2,4-Dimethylphenol	N.D.	67.	ug/kg	N.D.	80.		
3760	bis(2-Chloroethoxy)methane	N.D.	67.	ug/kg	N.D.	80.		
3748	2,4-Dichlorophenol	N.D.	67.	ug/kg	N.D.	80.		
1189	1,2,4-Trichlorobenzene	N.D.	33.	ug/kg	N.D.	39.		
3761	Naphthalene	96.	J	33.	ug/kg	110.	J	39.
4693	4-Chloroaniline	N.D.	33.	ug/kg	N.D.	39.		
3762	Hexachlorobutadiene	N.D.	67.	ug/kg	N.D.	80.		
1190	4-Chloro-3-methylphenol	N.D.	67.	ug/kg	N.D.	80.		
4694	2-Methylnaphthalene	40.	J	33.	ug/kg	48.	J	39.
3763	Hexachlorocyclopentadiene	N.D.	170.	ug/kg	N.D.	200.		
3749	2,4,6-Trichlorophenol	N.D.	67.	ug/kg	N.D.	80.		
4695	2,4,5-Trichlorophenol	N.D.	67.	ug/kg	N.D.	80.		
3764	2-Chloronaphthalene	N.D.	33.	ug/kg	N.D.	39.		
4696	2-Nitroaniline	N.D.	33.	ug/kg	N.D.	39.		
3765	Dimethylphthalate	N.D.	67.	ug/kg	N.D.	80.		
3765	Acenaphthylene	76.	J	33.	ug/kg	90.	J	39.

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.

Questions? Contact your Client Services Representative  
Kathy Klinefelter at (717) 656-2300



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Respectfully Submitted  
Charles J. Neslund, B.S.  
Group Leader, GC/MS SVOA



LLI Sample No. SW 3202274

Collected: 07/27/99 at 14:55 by MP

Submitted: 07/29/99 Reported: 08/16/99  
Discard: 10/16/99

SPO:TP04 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Account No: 10160

Chrysler Corporation  
PO Box 537933  
Livonia MI 48153-7933

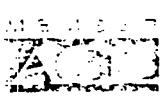
P.O. N99C403749-A  
Ref. YGQP9900241

CAT NO.	ANALYSIS NAME	AS RECEIVED			DRY WEIGHT		
		RESULTS	METHOD	DETECTION LIMIT UNITS	RESULTS	METHOD	DETECTION LIMIT
TCL SW846 Semivolatiles/Soil							
4697	3-Nitroaniline	N.D.	67.	ug/kg	N.D.	80.	
1191	Acenaphthene	49.	J	33.	58.	J	39.
3750	2,4-Dinitrophenol	N.D.	230.	ug/kg	N.D.	270.	
1192	4-Nitrophenol	N.D.	170.	ug/kg	N.D.	200.	
4698	Dibenzofuran	69.	J	33.	82.	J	39.
1193	2,4-Dinitrotoluene	N.D.	67.	ug/kg	N.D.	80.	
3767	2,6-Dinitrotoluene	N.D.	33.	ug/kg	N.D.	39.	
3770	Diethylphthalate	N.D.	67.	ug/kg	N.D.	80.	
3769	4-Chlorophenyl-phenylether	N.D.	33.	ug/kg	N.D.	39.	
3768	Fluorane	94.	J	33.	110.	J	39.
4700	4-Nitroaniline	N.D.	67.	ug/kg	N.D.	80.	
3751	4,6-Dinitro-2-methylphenol	N.D.	170.	ug/kg	N.D.	200.	
3772	N-Nitrosodiphenylamine	N.D.	33.	ug/kg	N.D.	39.	
3773	4-Bromophenyl-phenylether	N.D.	67.	ug/kg	N.D.	80.	
3774	Hexachlorobenzene	N.D.	33.	ug/kg	N.D.	39.	
1194	Pentachlorophenol	N.D.	170.	ug/kg	N.D.	200.	
3775	Phenanthrene	730.		33.	860.		39.
3776	Anthracene	220.	J	33.	260.	J	39.
4702	Carbazole	82.	J	33.	97.	J	39.
3777	Di-n-butylphthalate	N.D.	67.	ug/kg	N.D.	80.	
3778	Fluoranthene	1,100.		33.	1,300.		39.
1195	Pyrene	970.		33.	1,200.		39.
3780	Butylbenzylphthalate	N.D.	67.	ug/kg	N.D.	80.	
3783	3,3'-Dichlorobenzidine	N.D.	67.	ug/kg	N.D.	80.	
3781	Benz(a)anthracene	560.		33.	660.		39.
3784	bis(2-Ethylhexyl)phthalate	N.D.	67.	ug/kg	N.D.	80.	
3782	Chrysene	530.		33.	640.		39.
3785	Di-n-octylphthalate	N.D.	67.	ug/kg	N.D.	80.	
3786	Benzo(b)fluoranthene	690.		33.	820.		39.
3787	Benzo(k)fluoranthene	290.	J	33.	340.	J	39.
3788	Benzo(a)pyrene	520.		33.	620.		39.
3789	Indeno(1,2,3-cd)pyrene	400.		33.	480.		39.
3790	Dibenzo(a,h)anthracene	100.	J	33.	120.	J	39.
3791	Benzo(g,h,i)perylene	340.		33.	400.		39.

N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine.

The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.

Questions? Contact your Client Services Representative  
Kathy Klinefelter



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Respectfully Submitted  
Charles J. Neslund, B.S.  
Group Leader, GC/MS SVOA



Page: 6 of 13

LLI Sample No. SW 3202274

Collected: 07/27/99 at 14:55 by MP

Submitted: 07/29/99

Account No: 10160  
 Chrysler Corporation  
 PO Box 537933  
 Livonia MI 48153-7933

SPC1TP04 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermo Products/Dayton, OH  
 ITP04 SDG#:

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
6292	TCL by 8260 (soil)	SW-846 8260B	1		08/03/99 1650	Bryan J. Polick
0819	Solid Sample Pesticide Extract	SW-846 3550B	1		07/31/99 0720	Ginelle L. Haines
1225	TCL Pesticides in Solids	SW-846 8081A/8082	1		08/04/99 0555	Douglas D. Seitz
0381	BNA Soil Extraction	SW-846 3550B	1		08/03/99 2000	Karen L. Beyer
4688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1		08/06/99 1557	Heidi L. Ortenzi
4689	TCL SW846 Semivolatiles/Soil	SW-846 8270C	1		08/06/99 1557	Heidi L. Ortenzi
1123	Cyanide (Reactivity)	SW-846 9012	1		08/05/99 2200	Venia M. McFadden
0111	Moisture	EPA 160.3 modified	1		08/01/99 1929	Gabriel Agosto
0394	pH	SW-846 9045C (modified)	1		08/03/99 2200	Luz M. Groff
0542	Ignitability	40 CFR 261.21	1		08/04/99 1130	Catherine L. Cammauf
1121	Reactivity	SW-846 Chapter 7.3	1		08/05/99 0805	Susan E. Hibner
1122	Sulfide (Reactivity)	SW-846 9034	1		08/05/99 0805	Susan E. Hibner



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2216 Rev 1 2001



LLI Sample No. 3202274

 SP01TP04 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

 Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
6292 TCL by 8260 (soil)		Batch: E992121AD									
5444 Chloromethane											
2. ug/kg		N.D.		105	108	2	104			48	130
5446 Bromomethane											
3. ug/kg		N.D.		99	108	9	99			46	134
5445 Vinyl Chloride											
2. ug/kg		N.D.		108	113	5	100			60	127
5447 Chloroethane											
3. ug/kg		N.D.		99	104	5	96			30	142
5450 Methylene Chloride											
2. ug/kg		N.D.		9	1	6	104			69	126
6293 Acetone											
7. ug/kg		N.D.		104	99	6	78			46	133
6294 Carbon Disulfide											
3. ug/kg		N.D.		96	97	1	88			52	165
5449 1,1-Dichloroethene											
2. ug/kg		N.D.		112	112	0	103			69	146
5452 1,1-Dichloroethane											
1. ug/kg		N.D.		113	117	3	114			81	130
5455 Chloroform											
1. ug/kg		N.D.		107	114	7	113			82	123
5461 1,2-Dichloroethane											
2. ug/kg		N.D.		103	109	6	115			81	123
6296 2-Butanone											
7. ug/kg		N.D.		114	117	2	110			47	153
5457 1,1,1-Trichloroethane											
1. ug/kg		N.D.		110	115	4	120			84	132
5458 Carbon Tetrachloride											
1. ug/kg		N.D.		109	116	6	121			78	129
5465 Bromodichloromethane											
2. ug/kg		N.D.		106	112	6	114			80	121
5480 1,1,2,2-Tetrachloroethane											
1. ug/kg		N.D.		108	108	0	101			70	124
5463 1,2-Dichloropropane											
3. ug/kg		N.D.		113	117	4	114			77	127
6297 trans-1,3-Dichloropropene											
1. ug/kg		N.D.		103	108	4	105			69	131
5462 Trichloroethene											
1. ug/kg		N.D.		111	116	5	112			81	123
5470 Dibromochloromethane											
1. ug/kg		N.D.		106	109	3	112			80	120
5467 1,1,2-Trichloroethane											
2. ug/kg		N.D.		111	110	1	108			81	124
5460 Benzene											
1. ug/kg		N.D.		116	119	2	113			77	126
6298 cis-1,3-Dichloropropene											
1. ug/kg		N.D.		110	115	4	112			79	126



LLI Sample No. 3202274

SP01TP04 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

SAMPLE MDL.	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
5478 Bromoform											
1.	ug/kg	N.D.		102	101	1	107			73	120
6299 4-Methyl-2-pentanone											
3.	ug/kg	N.D.		102	108	6	110			63	123
6300 2-Hexanone											
3.	ug/kg	N.D.		105	107	1	104			60	128
5468 Tetrachloroethene											
1.	ug/kg	N.D.		115	120	4	114			83	150
5466 -cluene											
1.	ug/kg	N.D.		114	113	1	105			74	128
5472 Chlorobenzene											
1.	ug/kg	N.D.		114	112	2	108			81	121
5474 Ethylbenzene											
1.	ug/kg	N.D.		117	116	0	112			86	129
5477 Styrene											
1.	ug/kg	N.D.		116	114	2	108			84	127
6301 Xylene (Total)											
1.	ug/kg	N.D.		117	116	1	111			88	128
5451 trans-1,2-Dichloroethene											
2.	ug/kg	N.D.		115	119	4	111			73	126
5454 cis-1,2-Dichloroethene											
2.	ug/kg	N.D.		113	117	3	112			84	123

225 TC Pesticides in Solids Batch: 992110011A

1981 Alpha BHC	0.67 ug/kg	N.D.	84	85	1	102			38	156
1982 Beta BHC	0.57 ug/kg	N.D.	94	93	1	97			40	153
1983 Delta BHC	0.57 ug/kg	N.D.	76	76	0	97			44	145
1218 Gamma BHC - Lindane	0.57 ug/kg	N.D.	84	83	1	102			51	142
1219 Heptachlor	0.57 ug/kg	N.D.	85	81	5	100			59	140
1220 Aldrin	0.67 ug/kg	N.D.	105	100	4	100			55	132
1984 Heptachlor Epoxide	0.67 ug/kg	N.D.	93	91	2	99			58	129
1989 Encosulfan I	0.67 ug/kg	N.D.	185	185	0	81			56	123
1222 Dieldrin	1.3 ug/kg	N.D.	86	85	1	90			63	133
1985 DDE	1.3 ug/kg	N.D.	102	101	1	101			47	159
1223 Endrin	1.3 ug/kg	N.D.	105	104	0	112			70	150
1990 Endosulfan II	1.3 ug/kg	N.D.	44	51	16	89			46	138



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LLI Sample No. 3202274

 SP01TP04 Grab Soil Sample  
 Site Code: SC001 RFA#: YGQP9900241  
 Dayton Therma Products/Dayton, OH

 Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE JNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
1986 DDD											
	1.3 ug/kg	N.D.		108	107	1	101			53	141
1991 Endosulfan Sulfate											
	1.3 ug/kg	N.D.		88	84	5	108			40	150
1221 DDT											
	1.3 ug/kg	N.D.		107	107	0	110			60	138
3017 Endrin Ketone											
	1.3 ug/kg	N.D.		90	90	0	92			62	137
1859 Methoxychlor											
	5.7 ug/kg	N.D.		132	124	6	128			52	174
3025 Alpha Chlordane											
	0.67 ug/kg	N.D.		151	149	1	100			68	141
3026 Gamma Chlordane											
	0.57 ug/kg	N.D.		100	97	2	97			65	129
1988 Toxaphene											
	67 ug/kg	N.D.									
1992 Endrin Aldehyde											
	1.3 ug/kg	N.D.		82	82	1	83			75	125
1993 PCB-1016											
	33 ug/kg	N.D.									
1994 PCE-1221											
	33 ug/kg	N.D.									
1995 PCB-1232											
	33 ug/kg	N.D.									
1996 PCB-1242											
	33 ug/kg	N.D.									
1997 PCB-1248											
	33 ug/kg	N.D.									
1998 PCB-1254											
	33 ug/kg	N.D.									
1999 PCB-1260											
	33 ug/kg	N.D.									
88 TCL SW346 Semivolatiles	Soil	Batch: 99215SLD026									
1185 Phenol											
	67 ug/kg	N.D.		63	49	24	87			40	128
3753 bis(2-Chloroethyl)ether											
	33 ug/kg	N.D.		58	42	32	91			38	131
1186 2-Chlorophenol											
	33 ug/kg	N.D.		62	47	28	90			44	127
3754 1,3-Dichlorobenzene											
	33 ug/kg	N.D.		44	28	44	87			31	121
1187 1,4-Dichlorobenzene											
	33 ug/kg	N.D.		44	29	43	86			36	119
3755 1,2-Dichlorobenzene											
	33 ug/kg	N.D.		48	31	42	88			39	120
4690 2-Methylphenol											
	33 ug/kg	N.D.		61	48	25	89			42	127


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LLI Sample No. 3202274

SP01TP04 Grab Soil Sample  
 Site Coce: SCC01 RFA#: YGQP9900241  
 Dayton Thermal Products/Dayton, OH

Group No. 676387  
 Chrysler Corporation

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
4691	2,2'-oxybis(1-Chloropropane)										
33.	ug/kg	N.D.		54	38	34	88			38	151
4692	4-Methylphenol										
67.	ug/kg	N.D.		62	49	23	89			33	139
1188	N-Nitroso-di-n-propylamine										
33.	ug/kg	N.D.		64	49	26	92			39	142
3757	Hexachloroethane										
33.	ug/kg	N.D.		44	28	44	89			29	128
3758	Nitrobenzene										
33.	ug/kg	N.D.		59	44	29	91			42	131
3759	Isophorone										
33.	ug/kg	N.D.		61	47	25	89			46	130
3746	2-Nitrophenol										
67.	ug/kg	N.D.		65	50	28	97			36	141
3747	2,4-Dimethylphenol										
67.	ug/kg	N.D.		60	48	22	90			40	132
3760	bis(2-Chloroethoxy)methane										
67.	ug/kg	N.D.		63	49	26	93			44	127
3748	2,4-Dichlorophenol										
67.	ug/kg	N.D.		64	50	23	91			41	128
1189	1,2,4-Trichlorobenzene										
33.	ug/kg	N.D.		54	39	32	92			44	121
3761	Naphthalene										
33.	ug/kg	N.D.		55	41	31	89			34	133
4693	4-Chloroaniline										
33.	ug/kg	N.D.		50	41	18	42			1	113
3762	Hexachlorobutadiene										
67.	ug/kg	N.D.		52	36	36	92			39	133
1190	4-Chloro-3-methylphenol										
67.	ug/kg	N.D.		65	52	22	93			47	135
4694	2-Methylnaphthalene										
33.	ug/kg	N.D.		59	45	27	90			43	131
3763	Hexachlorocyclopentadiene										
170.	ug/kg	N.D.		35	24	38	69			1	141
3749	2,4,6-Trichlorophenol										
67.	ug/kg	N.D.		64	52	22	90			39	141
4695	2,4,5-Trichlorophenol										
67.	ug/kg	N.D.		64	52	21	87			45	136
3764	2-Chloronaphthalene										
33.	ug/kg	N.D.		64	51	23	92			48	127
4696	2-Nitroaniline										
33.	ug/kg	N.D.		71	58	21	101			25	139
3766	Dimethylphthalate										
67.	ug/kg	N.D.		67	55	21	95			53	127
3765	Acenaphthylene										
33.	ug/kg	N.D.		62	50	21	89			44	126

589 TCL SW846 Semivolatiles/Soil Batch: 99215SLD026



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2216 Rev 3 2000



LLI Sample No. 3202274

SP01TP04 Grab Soil Sample  
Site Code: SC001 RFA#: YGQP9900241  
Dayton Thermal Products/Dayton, OH

Group No. 676387  
Chrysler Corporation

SAMPLE ID#	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
4697	3-Nitroaniline			61	52	17	66		18	117
67.	ug/kg	N.D.		63	51	21	91		47	127
1191	Acenaphthene			35	26	29	55		1	133
33.	ug/kg	N.D.		60	46	27	83		31	161
3750	2,4-Dinitrophenol			66	54	21	93		53	125
230.	ug/kg	N.D.		67	54	21	95		50	131
1192	4-Nitrophenol			71	58	21	103		53	130
170.	ug/kg	N.D.		68	56	20	97		54	130
4698	Dibenzofuran			67	54	21	92		47	132
33.	ug/kg	N.D.		65	53	20	92		42	142
1193	2,4-Dinitrotoluene			52	37	33	76		30	127
67.	ug/kg	N.D.		64	52	20	86		14	143
3767	2,6-Dinitrotoluene			70	57	21	97		49	130
33.	ug/kg	N.D.		70	57	22	96		53	132
3770	Diethylphthalate			70	56	22	95		40	144
67.	ug/kg	N.D.		70	56	22	95		20	132
3769	4-Chlorophenyl-phenylether			69	45	30	94		45	132
33.	ug/kg	N.D.		69	52	25	95		48	129
3768	Fluororene			70	55	23	94		54	133
33.	ug/kg	N.D.		71	56	23	97		37	142
4700	4-Nitroaniline			64	36	33	92		34	145
67.	ug/kg	N.D.		67	43	28	103		47	138
3751	4,6-Dinitro-2-methylphenol			72	59	21	104		2	132
170.	ug/kg	N.D.		58	50	15	69		44	133
3772	N-Nitrosodiphenylamine			69	47	29	94			
33.	ug/kg	N.D.								
3773	4-Bromophenyl-phenylether									
67.	ug/kg									
3774	Hexachlorobenzene									
33.	ug/kg									
1194	Pentachlorophenol									
170.	ug/kg									
3775	Phenanthrene									
33.	ug/kg									
3776	Anthracene									
33.	ug/kg									
4702	Carbazole									
33.	ug/kg									
3777	Di-n-butylphthalate									
67.	ug/kg									
3778	Fluoranthene									
33.	ug/kg									
1195	Pyrene									
33.	ug/kg									
3780	Butylbenzylphthalate									
67.	ug/kg									
3783	3,3'-Dichlorobenzidine									
67.	ug/kg									
3781	Benzo(a)anthracene									
33.	ug/kg									

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